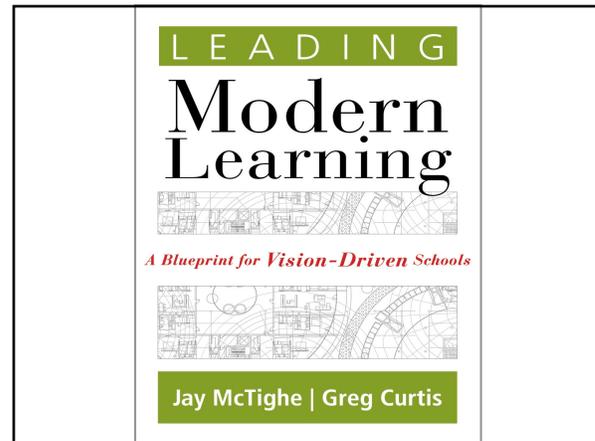
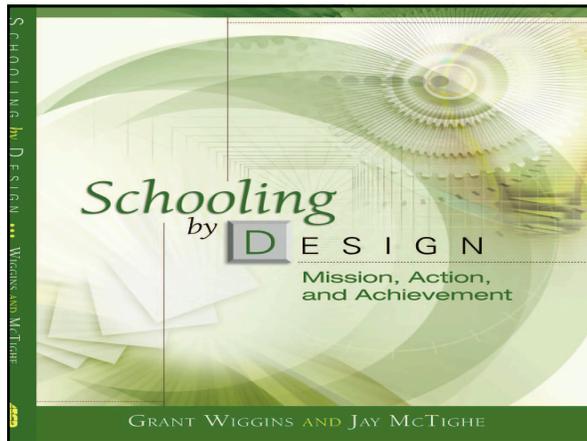
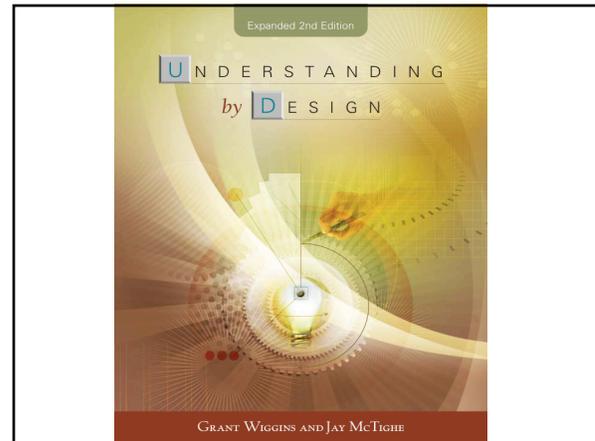
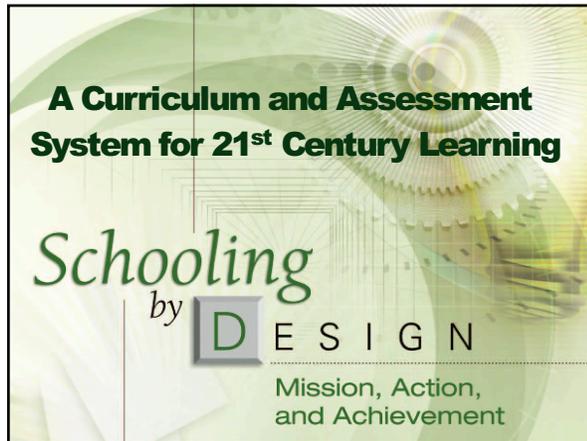


A Curriculum and Assessment System for 21st Century Learning



5 From Common Core Standards to Curriculum:
BIG IDEAS

by Jay McTighe and Grant Wiggins

Think of the grade level standards as building materials. As a construction supervisor, we wouldn't simply drop off materials and tools at a worksite and have the workers "go at it." Instead, we would begin with a blueprint—an overall vision of the desired building to guide its construction.

IN THIS ARTICLE, WE EXPLORE the big ideas about the Common Core State Standards and their translation into a curriculum. As with most big ideas, these Standards are in some ways obvious but may also be counter-intuitive and prone to misunderstanding. We highlight potential misconceptions in working with the Standards, and offer recommendations for designing a coherent curriculum and assessment system for meeting their purposes.

BIG IDEA #1 The Common Core Standards have new emphases and require a careful reading.

In our travels around the country since the Common Core Standards were released, we sometimes hear comments such as, "Oh, here we go again!" "Same old, same old," or "We already do all of this." Such reactions are not surprising given the fact that we have been here before. A focus on Standards is not new. However, it is a misconception to assume that these Standards merely require minor tweaks to our curriculum and instructional practices. In fact, the authors of the Mathematics Standards anticipated this reaction and caution against it: "These Standards are not intended to be new venues for old ways of doing business." (p. 1) Merely going to retake the Standards to typical teaching and testing practices will undermine the effort.

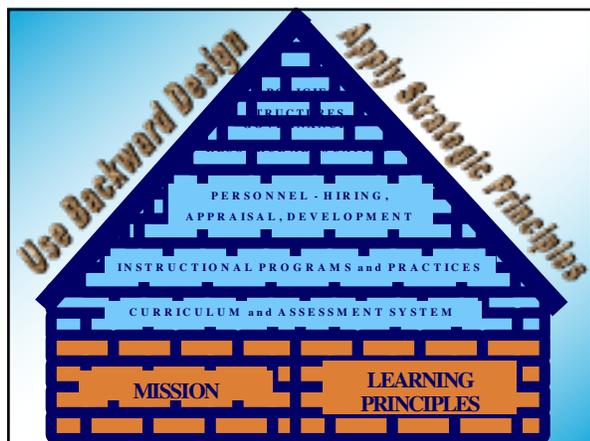
A related misconception in working with the Common Core is to expect other teachers turn immediately to the grade level Standards based for their grade or course to plan their teaching. Such an action is reasonable, after all, isn't that what they are expected to teach? While understandable, we advise against jumping to the grade level Standards before a careful examination of the goals and structure of the overall documents.

To make a construction analogy, think of the grade level standards as building

Three-Minute Pause 

Meet in groups of 3 - 5 to...

- ✓ summarize key points.
- ✓ add your own thoughts.
- ✓ pose clarifying questions.



Research Finding...

A **“guaranteed and viable curriculum is the #1 school-level factor impacting student achievement.”**

– Marzano, *What Works in Schools*

Curriculum...

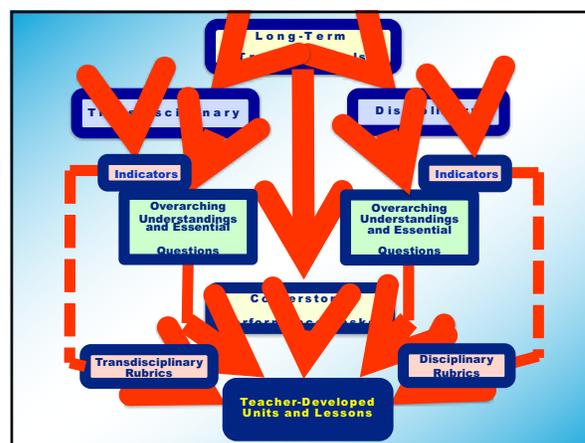
“The course to be run”

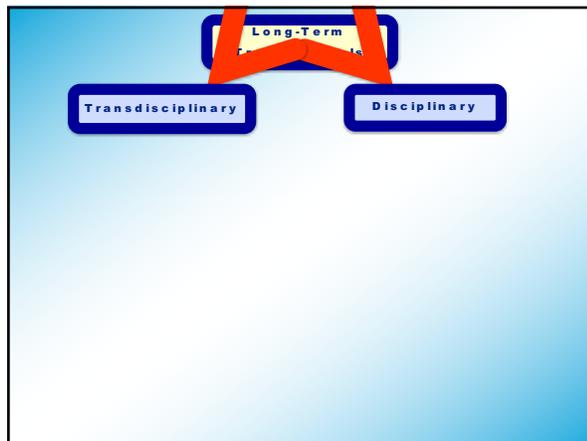
Curriculum = a plan to achieve designated goals.

Curriculum \neq a list of topics and related activities.



A Model Curriculum Blueprint





Long-Term Transfer Goal

"Students will be able to independently use their learning to ..."



An effective curriculum equips learners for autonomous performance ... by design!

Transfer Goal: Writing

Students will be able to independently use their learning to:

- Effectively write in various genres for various audiences and purposes (inform, explain, entertain, persuade, guide, or challenge/change things).

Transfer Goals: Mathematics

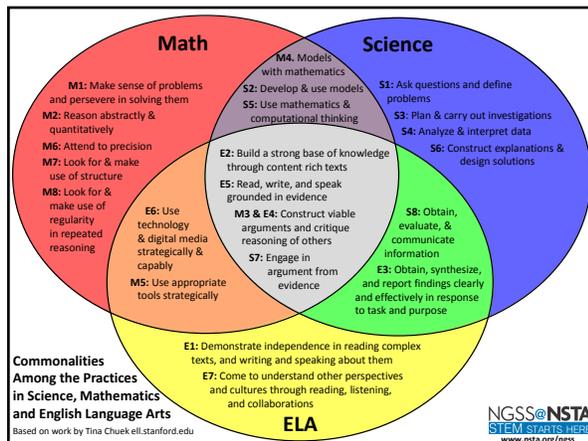
- Make sense of never-before-seen, "messy" problems and persevere in trying to solve them.
- Construct viable arguments and critique the reasoning of others.

Transfer Goals: Reading

- Read and comprehend complex literary and informational texts independently and proficiently.
- Choose to read during leisure time.

Transfer Goal: History/SS

- Use knowledge of patterns of history to better understand the present and prepare for the future.
- Critically appraise historical claims and analyze contemporary issues.
- Participate as an active and civil citizen in a democratic society.



Transfer Goal: World Languages

Students will be able to independently use their learning to:

- **Effectively communicate with varied audiences and for varied purposes while displaying appropriate understanding of culture and context.**

Transfer Goals: Science

- **Use knowledge and reasoning to evaluate scientific claims or arguments and analyze current issues involving science or technology.**
- **Conduct an investigation following established scientific protocols.**

North Slope Borough School District (2012)

Transfer Goal: Health and Physical Education

- **Make healthful choices and decisions regarding diet, exercise, stress management, alcohol/drug use throughout one's life.**
- **Play a chosen game skillfully and with good sportsmanship.**

Transfer Goal: Visual and Performing Arts

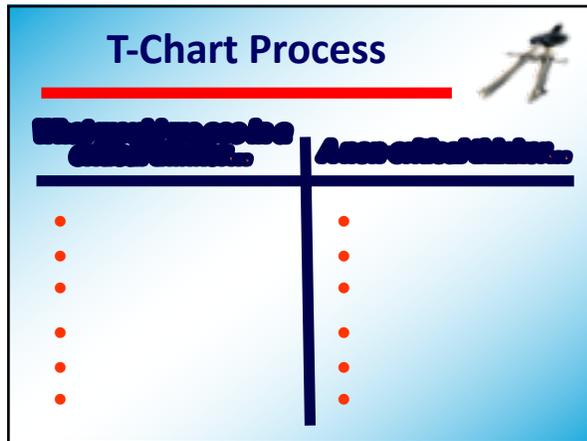
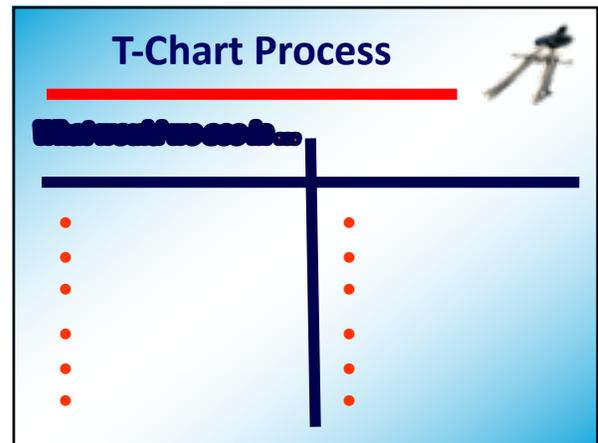
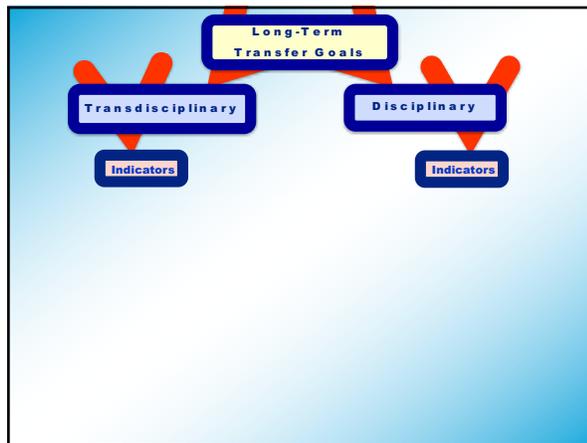
- **Create purposeful artistic expressions through various media and styles.**
- **Value, and participate in, the arts throughout one's life.**



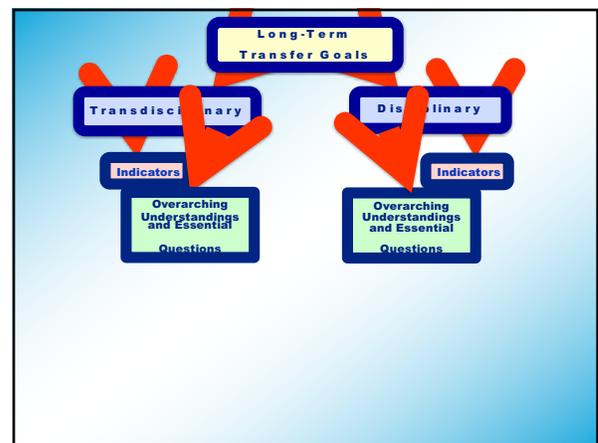
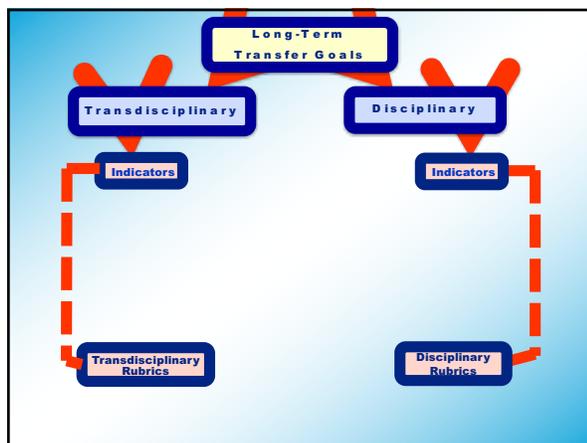
The Four Cs are Long-Term Transfer Goals!

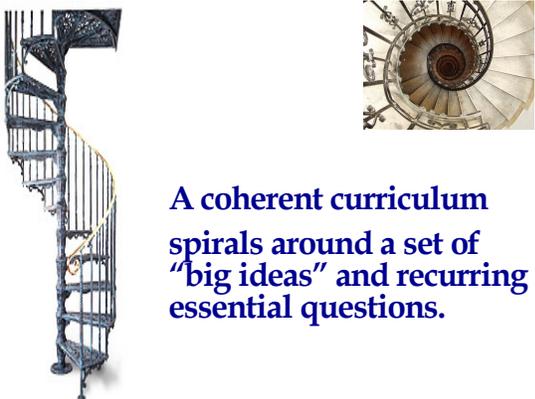


- *Critical Thinking*
- *Creativity*
- *Communication*
- *Collaboration*



Indicators of a Critical Thinker	Indicators of a non-Critical Thinker
<ul style="list-style-type: none"> Asks critical questions Remains "skeptical" Questions the accuracy, validity, reliability of information Deliberately seeks different points of view and considers their merits Able to identify personal and cultural biases Self assesses/monitors progress and adjusts as needed Reflects on experience Deliberative Views problems on a "macro" and "micro" level Recognizes "shades of grey" Can provide a rationale/support for their position/answer Uses evidence to prove/disprove Thrives with questions Comfortable w/ ambiguity Can transfer learning to new situations 	<ul style="list-style-type: none"> Does not question Gullible Accepts things at face value Does not seek other perspectives Narrow - only sees one perspective Egocentric Fails to self monitor Doesn't revise or value revision Needs others to tell them how they're doing Impulsive Seeing things in isolation Sees things as "black or white" Can't support their position/answer Does not provide evidence or doesn't know what evidence to use Only wants "the" answer Uncomfortable with ambiguity Can only apply what was taught in the way it was taught





A coherent curriculum spirals around a set of “big ideas” and recurring essential questions.

Mathematical Modeling

“Big Idea” Understandings

- Mathematicians create models to interpret and predict the behavior of real-world phenomena.
- Mathematical models have limits and sometimes they distort or misrepresent.

Mathematical Modeling

Essential Questions

- *How can we best model this (real-world phenomena)?*
- *What are the limits of this model?*
- *How reliable are its predictions?*

Argumentation

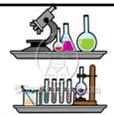
“Big Idea” Understandings

- A convincing argument requires a clear position, logical reasoning and support with evidence.
- An effective argument contains rebuttals to possible objections.

Argumentation

Essential Questions

- *What makes an argument persuasive?*
- *What are possible objections to my argument? How might these be countered?*



Next Generation Science Standards

6. Structure and Function. The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.

How are structure and function related:

- ... in living things?
- ... in nonliving things?



Next Generation Science Standards

Includes eight *Practices* for K–12 Classrooms.

Example:

7. Engaging in argument from evidence

**What makes a credible argument?
What constitutes effective evidence?**

Transfer Goal: **READING TO COMPREHEND**

Overarching Understandings	Overarching Essential Questions
Effective readers use strategies (e.g., predicting, summarizing, using context clues and text features, questioning) to construct meaning from texts.	<i>What do good readers do?</i>
Effective readers actively monitor their reading to insure comprehension.	<i>What is my strategy for reading this text? How do I know if it is working?</i>
Texts have structures reflecting predictable organizational patterns. Identifying a text's genre, purpose, and organizational structure helps readers better comprehend the text.	<i>What is the author trying to tell me?</i> <i>How does what I read influence how I should read it?</i>

Transfer Goal: **ARGUMENTATION**

Overarching Understandings	Overarching Essential Questions
A convincing argument requires a clear position, logical reasoning, and support with evidence.	<i>What makes an argument convincing?</i>
An effective argument addresses the target audience; e.g., using appropriate language, examples, and reasons.	<i>Who is my audience? How can I convince them?</i>
An effective argument includes a persuasive rebuttal to opposing positions.	<i>What questions might I face?</i> <i>What are possible or predictable objections to my position? How can I counter these objections?</i>

Transfer Goal: **CRITICAL THINKING**

Overarching Understandings	Overarching Essential Questions
A critical thinker does not simply accept what they read, view, and hear. They remain skeptical, ask critical questions and seek evidence before deciding what to believe or do.	<i>How do I know what to believe in what I read, view and hear?</i>
A critical thinker deliberately seeks alternate perspectives.	<i>Whose "story" is this? What other perspective(s) should I consider?</i>
A critical thinker plays "devil's advocate" to challenge claims, question assumptions and press for reasons.	<i>What is another way of viewing this?</i> <i>What is the evidence for _____?</i> <i>Why should I believe/accept this?</i>

Transfer Goal: **PERSISTENCE**

Overarching Understandings	Overarching Essential Questions
People have a better chance of completing a task if they are focused on what they want, what they have to do, the time they have to get it done, and a plan for how they will achieve it.	<i>Why should I keep trying? What should I do if/when I get stuck?</i>
Instead of giving up, people who persist apply strategies to help them stick with it.	<i>Why is it so important that I work to complete this task?</i>
People need to decide whether persisting is worth pursuing since not all tasks are worth extended effort.	<i>What are the consequences if I do or do not complete this task?</i> <i>Would my time and efforts be better applied elsewhere? Is this worth my persistence?</i>

Physical Education/ Health

International School of Beijing
Learns through
Understanding by Design

Understanding by Design is an approach to teaching and learning that puts the emphasis on acquiring "Essential Understandings" often guided by inquiry through "Essential Questions." "Enduring Understandings" are the important, deep and central "big ideas" of learning that stand behind all that we do. "Essential Questions" are probing, open-ended and thought-provoking questions that spark students and teachers to look beyond the basic content of an area of study.

All IBL groups of teachers representing all subject areas and all grades worked together to create "overarching essential questions." These questions represent the core of what is really important in an area of study. They also represent agreements as to the recurring characteristics of learning in a subject area that will be reinforced in different ways and at different times to help build a rich Web of understanding for our students.

Physical Education/Health Essential Questions:

1. How do I perform at my best?
2. Why is it important to improve?
3. How can I use space?
4. How can I influence the outcome of a game/activity?
5. Why do we have rules?
6. How can physical activity influence health?
7. Why lead a healthy lifestyle?
8. What makes a good team player?
9. How can decisions impact my well-being?
10. Why is active participation beneficial?

Visual Arts

International School of Beijing
Learns through
Understanding by Design

Understanding by Design is an approach to teaching and learning that puts the emphasis on acquiring "Essential Understandings" often guided by inquiry through "Essential Questions." "Enduring Understandings" are the important, deep and central "big ideas" of learning that stand behind all that we do. "Essential Questions" are probing, open-ended and thought-provoking questions that spark students and teachers to look beyond the basic content of an area of study.

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Visual Arts Essential Questions:

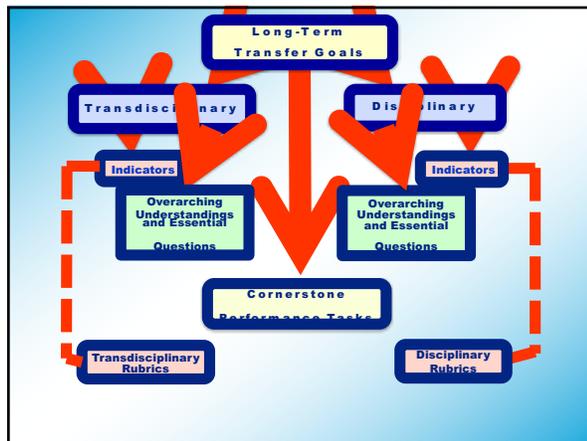
1. What is art?
2. Where can we find art?
3. How do we create art?
4. Why do we create art?
5. How does art communicate?
6. How does art reflect history, culture and society?
7. What factors influence artists and artistic expression?
8. How do people express themselves through art?

Three-Minute Pause



Meet in groups of 3 - 5 to...

- ✓ summarize key points.
- ✓ add your own thoughts.
- ✓ pose clarifying questions.



corner-stone (n):

1. the first stone laid at a corner where two walls begin and form the first part of a new building
2. something that is fundamentally important to something

Cornerstone Tasks

- Anchor the curriculum in important, recurring tasks.
- Require understanding and transfer of learning.
- Integrate 21st century outcomes.
- Provide evidence of authentic accomplishments.

(“Doing the subject” and “playing the game”)

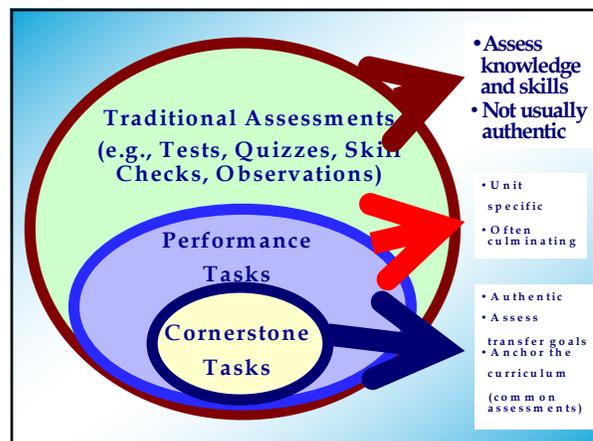
Transfer Goal: Writing

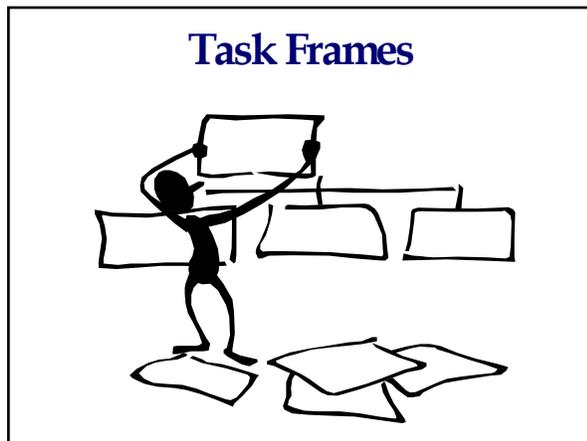
Students will be able to independently use their learning to:

- Effectively write in various genres for various audiences and purposes (inform, explain, entertain, persuade, guide, or challenge/change things).

Cornerstone Assessments in Writing (6-12)
GREECE CENTRAL SCHOOL DISTRICT, NY

GRADE	Expository	Persuasive	Literary Analysis	Creative/ Expressive
Grade 6	Research report	Position paper	Literary essay on setting or conflict	Original myth
Grade 7	Autobiography	Policy evaluation	Literary essay on character	Persona writing
Grade 8	Research report	Problem/ solution essay	Literary essay on symbolism	Narrative fiction
Grade 9	Cause/effect essay	Editorial	Analysis of multiple literary elements	Poetry
Grade 10	Research report	Social issue essay	Critical Lens essay	Historical Persona
Grade 11	Definition essay	Argumentative essay	Comparative genre essay	Parody/satire
Grade 12	Research paper	Position paper	Response to literary criticism	Irony





example:

How To Perform a Task

Since you are an accomplished _____, you have been asked to develop a **step-by-step directions** to help **other kids** learn how to do it. Your directions should include **words and pictures** to help others learn how to _____ like you.

Example:

What's Your Position?



After reading _____ (literature or informational texts), write _____ (essay or substitute) that compares _____ (content) and argues _____ (content). Be sure to support your position with evidence from the texts.

Example:

Drone On...



Should drones be regulated?

After researching **possible commercial uses of drones and examining various opinions on the issue**, develop your own position and develop a **(policy brief, editorial, blog)** that argues for your position. Support your position with evidence from your research, while acknowledging competing views.

Example:

Involved Citizen



You have an idea that you believe will make your school better, and you want to convince school leaders that they should act on your idea. Identify your audience (e.g., principal, PTSA board, students) and:

1. Describe your idea.
2. Explain why and how it will improve the school.
3. Develop a plan for acting on your idea.

Your idea and plan can be communicated to your target audience in a letter, e-mail, or presentation.

Example:

Involved Citizen



After investigating a current political issue, prepare a position paper or presentation for a public policy maker (e.g., Congress person) or group (e.g., school board, legislative committee). Assume that the policy maker or group is opposed to your position. Your position statement should provide an analysis of the issue, consider options, present your position, rebut opposing positions, and attempt to persuade the public policy maker or group to vote accordingly.

Your position can be communicated in a written report, via a web blog, or delivered as a presentation.

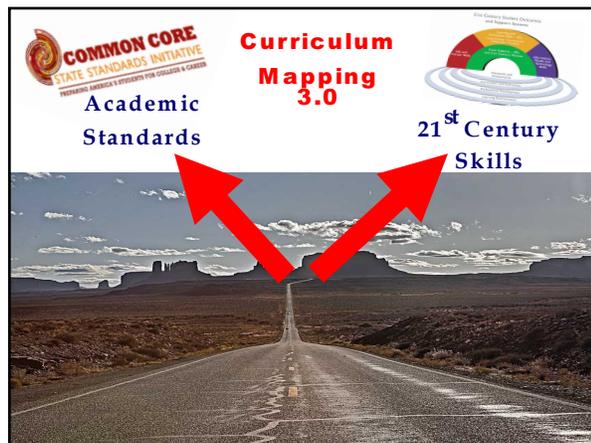
Three-Minute Pause

Meet in groups of 3 - 5 to...

- ✓ summarize key points.
- ✓ add your own thoughts.
- ✓ pose clarifying questions.



How does this Curriculum Blueprint work relate to curriculum mapping?



It's Time for Curriculum Mapping 3.0

First generation = Diary mapping

Second generation = Consensus mapping against standards

Third generation = Mapping performance backward from long-term transfer goals

First generation = Diary Mapping

Mapping the Big Picture
Integrating Curriculum & Assessment K-12
Heidi Hayes Jacobs

First generation = Diary Mapping

Year-Long Course Map
Sixth Grade – Social Studies

	1 st 9 Weeks		2 nd 9 Weeks			3 rd 9 Weeks		4 th 9 Weeks		
	August	September	October	November	December	January	February	March	April	May
Economics Preview	Europe				Latin America		Canada	Australia & Oceania		Preview 7 th Grade Curriculum
Social Studies Skills Matrix										
Notes										

Second generation = Consensus Mapping from Standards



Second generation = Consensus Mapping from Standards

SAUSD Common Core Aligned Curriculum Map: Math Grade 5 Year at a Glance

Title	Time	Performance Task	Big Idea	Essential Questions	Core Texts
Unit 1: Whole Numbers and Decimals (Number & Operations Base Ten)	Sept	Compare populations of two cities by converting them to integers with decimal notation.	Different values can be represented in many ways.	• Why patterns can or cannot be in the same row or column? • How does the position of a number determine its value? • How are the same number written in different ways? • How are decimals used to represent numbers in real-world situations?	HM Chapter 3
Unit 2: Addition & Subtraction of Decimals (Operations & Algebraic Thinking/ Number & Operations Base Ten)	Sept	Plan a trip for your family, adding the mileage between cities, using decimal notation.	Real-world problems can be solved by combining or separating groups.	• How are addition and subtraction of decimals represented by different methods, such as number lines? • How are decimals used to represent numbers in real-world situations?	HM Chapter 5, 12
Unit 3: Addition and Subtraction of Fractions (Number & Operations-Fractions)	Oct/Nov	Choose the items you would take with you as an immigrant from Europe where each person is allotted a certain weight for all their belongings.	Real-world problems can be solved by combining or separating groups.	• How are fractions related to decimals? • How are common denominators used to add or subtract fractions? • How are fractions used to represent numbers in real-world situations?	HM Chapters 2, 4, 7, 8, 9
Unit 4: Multiplication and Division of Whole Numbers & Operations Base Ten)	Nov/Dec	Compare the areas of similar solids in square feet.	Real-world problems can be solved by combining or separating groups.	• What patterns do you notice when multiplying or dividing by the same or related numbers? • How does using the algorithm help you to multiply or divide? • How do you round the result of a division? • How do you use the relationship of multiplication and division to solve problems?	HM Chapters 3, 6, 21
Unit 5: Volume (Measurement & Data)	January	Estimate the number of living cubes that will fit in a classroom.	Objects can be measured and compared by their attributes.	• How are volume and surface area related? • How do you measure volume? • How do you measure surface area? • How do you use the relationship between volume and surface area to solve problems? • How do you use the relationship between volume and surface area to solve problems?	Getting to the Core Volume Unit

Curriculum Mapping: Three Generations

First generation = Diary mapping

Second generation = Consensus mapping against standards

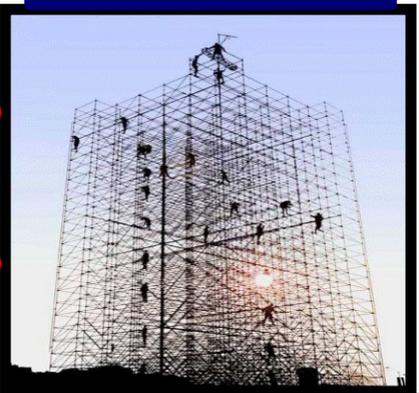
Third generation = Mapping performance backward from desired performances based on long-term transfer goals.

Moving from scaffolded to autonomous performance - by design!



12

Long-term Transfer Goals



Sample Map of Cornerstone Performance Tasks

	ELA	Mathematics	Science	Social Studies
12	Independent Study Project ELA and Science and Social Studies (Critical Thinking, Communication)	Mathematical Modeling Project (e.g., Home Savings & Investments) (Critical Thinking, Communication)	Independent Study Project ELA and Science and Social Studies (Critical Thinking, Communication)	Independent Study Project ELA and Science and Social Studies (Critical Thinking, Communication)
11	Family/Birth Story ELA and Science and Social Studies (Creativity, Collaboration, Communication)	Amusement Park Links to Science (Critical Thinking, Communication)	Chemistry Crime Scene (Critical Thinking, Collaboration, Communication)	Problem-Solution Campaign (Critical Thinking, Collaboration, Communication)
10	Original Short Story, Song or Poem (Creativity, Communication)	How to Live with Statistics Project (Critical Thinking, Collaboration, Communication)	Genetics Project Science and Social Studies (Critical Thinking, Communication)	Constitutional Checks & Balances (Critical Thinking, Communication)
9	Research Project with A/V Presentation (Critical Thinking, Communication)	Mathematical Modeling with Linear Equations (Critical Thinking, Communication)	Earthquake Science (Critical Thinking, Collaboration, Communication)	Contemporary Issues Debate (Critical Thinking, Communication)
8	Causes of Conflict Research Project ELA and Social Studies (Critical Thinking, Communication)	Design Your Dream Bedroom (Critical Thinking, Communication)	Consumer Scientist (Critical Thinking, Communication)	Causes of Conflict Research Project ELA and Social Studies (Critical Thinking, Communication)
7	Autobiography (Communication)	Evolution & Contractor's Proposal (Critical Thinking, Communication)	Water Quality Testing (Critical Thinking, Communication)	History: Whose Story? Examining Perspectives (Critical Thinking, Communication)
6	Personal Narrative (Communication)	Exercise Science Science and Health/PE (Creativity, Collaboration, Communication)	Prove It! (Critical Thinking, Communication)	Humans and the Environment (Critical Thinking, Communication)
5	People on the Move Research Project ELA and Social Studies (Critical Thinking, Communication)	Fund Raiser Project (Critical Thinking, Creativity, Collaboration, Communication)	Contract Your Own Experiment (Critical Thinking, Communication)	People on the Move Research Project ELA and Social Studies (Critical Thinking, Communication)
4	Authors' Party Presentation (Communication, Collaboration, Creativity)	Geometry Town (Critical Thinking, Creativity, Collaboration)	Seed to Plant Project (Critical Thinking, Communication)	Where We Live and How We Live (Critical Thinking, Communication)
3	Personal Narrative (Communication)	Measure This! (Critical Thinking, Creativity, Collaboration, Communication)	Prove It! (Critical Thinking, Communication)	Alike and Different: Community & Culture (Critical Thinking, Communication)
	Show and Tell	Animal Zoo (Habitats)	Animal Zoo (Habitats)	Wants and Needs

Three-Minute Pause



Meet in groups of 3 - 5 to...

- ✓ summarize key points.
- ✓ add your own thoughts.
- ✓ pose clarifying questions.

Analytic Rubric for Problem Solving

	Reasoning	Computation	Representation	Communications
4	An efficient and effective strategy is used and progress towards a solution is evident. Adjustments in strategy, if needed, are made, and/or alternative strategies are considered. There is sound mathematical reasoning throughout.	All computations are performed accurately and completely. There is evidence that computations are checked. A correct answer is obtained.	Abstract or symbolic mathematical representations are constructed and refined to analyze relationships, clearly or interpret the problem elements, and guide solutions.	Communication is clear, complete and appropriate to the audience and purpose. Precise mathematical terminology and symbolic notation are used to communicate ideas and mathematical reasoning.
3	An effective strategy is used and mathematical reasoning is sound.	Computations are generally accurate. Minor errors do not detract from the overall approach. A correct answer is obtained once minor errors are corrected.	Appropriate and accurate mathematical representations are used to interpret and solve problems.	Communication is generally clear. A sense of audience and purpose is evident. Some mathematical terminology is used to communicate ideas and mathematical reasoning.
2	A partially correct strategy is used, or a correct strategy for only solving part of the task is applied. There is some attempt at mathematical reasoning, but flaws in reasoning are evident.	Some errors in computation prevent a correct answer from being obtained.	An attempt is made to construct mathematical representations, but some are incomplete or inappropriate.	Communication is uneven. There is only a vague sense of audience or purpose. Everyday language is used or mathematical terminology is not always used accurately.
1	No strategy is used, or a flawed strategy is tried that will not lead to a correct solution. There is little or no evidence of sound mathematical reasoning.	Multiple errors in computation are evident. A correct solution is not obtained.	No attempt is made to construct mathematical representations or the representations are seriously flawed.	Communication is unclear and incomplete. There is no awareness of audience or purpose. The language is and does not make use mathematical terminology.

Common Analytic Speaking Rubric for World Languages

	Comprehensibility	Fluency	Pronunciation	Vocabulary	Language Control
4	Responses readily comprehensible, requiring no interpretation on the part of the listener.	Speech continuous with few pauses or stumblings.	Accurate pronunciation enhances communication.	Rich use of vocabulary enhances communication.	Accurate control of basic language structures.
3	Responses comprehensible, requiring minimal interpretation on the part of the listener.	Some hesitation but manages to continue and complete thoughts.	Infrequent mispronunciations do not interfere with communication.	Adequate and accurate use of vocabulary for this level enhances communication.	Generally accurate control of basic language structures.
2	Responses mostly comprehensible, requiring interpretation on the part of the listener.	Speech choppy and/or slow with frequent pauses, few or no incomplete thoughts.	Mispronunciations sometimes interfere with communication.	Inadequate and/or inaccurate use of vocabulary sometimes interferes w/ communication.	Emerging use of basic language structures.
1	Responses barely comprehensible.	Speech halting and uneven with long pauses or incomplete thoughts.	Frequent mispronunciations greatly interfere with communication.	Inadequate and/or inaccurate use of vocabulary greatly interferes with communication.	Inadequate and/or inaccurate use of basic language structures.

Source: Fairfax County, VA Public Schools <http://www.fcps.edu/DIS/OHSICS/forlang/PALS/rubrics/>

Rubric for Cooperation and Teamwork

	Contributes to Group Goals	Adheres to Agreements and Norms	Demonstrates Productive Interpersonal Skills
4	Actively helps identify group goals and works hard to meet them. Takes initiative to address group's needs and shifts roles when necessary to support the group.	Always adheres to group agreements and norms. Takes the lead in modeling and reinforcing group norms. Reminds others of the importance of following agreements and norms.	Actively and consistently demonstrates productive interpersonal skills. Models effective and supportive interactions for others. Provides respectful feedback to help others improve their interactions within the group.
3	Displays a commitment to group goals and works to meet them. Carries out assigned role independently.	Consistently acts in ways that follow established agreements and norms, but may have occasional lapses.	Generally demonstrates productive interpersonal skills. Interacts with others without prompting. Expresses ideas and opinions in a way that is sensitive to the knowledge base and feelings of others.
2	Puts forth some effort, but sometimes lets others shoulder the work. Needs reminders to stay on task or perform assigned role.	Inconsistently follows established agreements and norms. Needs behavioral reminders to follow the norms.	Use of productive interpersonal skills is inconsistent. Sometimes interactions with others are less than positive. May need reminders, e.g., to listen actively, wait one's turn, avoid put downs, be flexible.
1	Does not actively work toward group goals. OR Is passive and does not contribute to the group. OR Acts in ways that undermine the ability of the group to achieve its goal.	Regularly violates the established agreements and norms. Behaves in ways that disrupt the effective functioning of the group.	Poor interpersonal skills interfere with effective group performance, e.g., does not listen, dominates, interrupts, insensitive, inflexible, puts down others.

Performance List for Cooperative Learning Primary Level

Note:
This format encourages self-assessment and goal setting by the student.

	Terrific	O.K.	Needs Work
1. Did I do my job in my group?			
2. Did I follow directions?			
3. Did I finish my part on time?			
4. Did I help others in my group?			
5. Did I listen to others in my group?			
6. Did I get along with others in my group?			
7. Did I help my group clean up?			

What will you try to do better the next time you work in a group?




What is the relationship of this to the work of PLCs?

Coaches regularly reviewing game performances and plan improvements.



Cornerstone Assessments in Writing (6-12) GREECE CENTRAL SCHOOL DISTRICT, NY				
GRADE	Expository	Persuasive	Literary Analysis	Creative/ Expressive
Grade 6	Research report	Position paper	Literary essay on setting or conflict	Original myth
Grade 7	Autobiography	Policy evaluation	Literary essay on character	Persona writing
Grade 8	Research report	Problem/ solution essay	Literary essay on symbolism	Narrative fiction
Grade 9	Cause/effect essay	Editorial	Analysis of multiple literary elements	Poetry
Grade 10	Research report	Social issue essay	Critical Lens essay	Historical Persona
Grade 11	Definition essay	Argumentative essay	Comparative genre essay	Parody/satire
Grade 12	Research paper	Position paper	Response to literary criticism	Irony

Analytic Rubric for Mathematical Problem Solving				
	Reasoning	Computation	Representation	Communications
4	An efficient and effective strategy is used and progress towards a solution is evaluated. Adjustments in strategy, if needed, are made, and/or alternative strategies are considered. There is sound mathematical reasoning throughout.	All computations are performed accurately and completely. There is evidence that computations are checked. A correct answer is obtained.	Abstract or symbolic mathematical representations are constructed and refined to analyze relationships, clearly or interpret the problem elements, and guide solutions.	Communication is clear, complete and appropriate to the audience and purpose. Precise mathematical terminology and symbolic notation are used to communicate ideas and mathematical reasoning.
3	An effective strategy is used and mathematical reasoning is sound.	Computations are generally accurate. Minor errors do not detract from the overall approach. A correct answer is obtained once minor errors are corrected.	Appropriate and accurate mathematical representations are used to interpret and solve problems.	Communication is generally clear. A sense of audience and purpose is evident. Some mathematical terminology is used to communicate ideas and mathematical reasoning.
2	A partially correct strategy is used, or a correct strategy for only solving part of the task is applied. There is some attempt at mathematical reasoning, but flaws in reasoning are evident.	Some errors in computation prevent a correct answer from being obtained.	An attempt is made to construct mathematical representations, but some are incomplete or inappropriate.	Communication is uneven. There is only a vague sense of audience or purpose. Everyday language is used or mathematical terminology is not always used correctly.
1	No strategy is used, or a flawed strategy is tried that will not lead to a correct solution. There is little or no evidence of sound mathematical reasoning.	Multiple errors in computation are evident. A correct solution is not obtained.	No attempt is made to construct mathematical representations or the representations are seriously flawed.	Communication is unclear and incomplete. There is no awareness of audience or purpose. The language is imprecise and does not make use of mathematical terminology.

A common rubric promotes greater evaluative consistency among teachers.

Data-Driven Improvement Planning

Based on an analysis of achievement data and student work:

- What patterns of weakness are noted? • What specific areas are most in need of improvement?

- problem solving and mathematical reasoning are generally weak
- students do not effectively explain their reasoning and their use of strategies
- appropriate mathematical language is not always used

What specific improvement actions will we take?

- Increase our use of "non routine" problems that require mathematical reasoning.
- Explicitly teach (and regularly review) specific problem solving strategies.
- Develop a poster of problem solving strategies and post in each math classroom.
- Increase use of "think alouds" (by teacher & students) to model mathematical reasoning.
- Develop a "word wall" of key mathematical terms and use the terms regularly.
- Revise our problem solving rubric to emphasize explanation & use of mathematical language.

ANNOTATED EXEMPLAR

Literary Response

GRADE 6

Conflicts can not be avoided. In life, without conflicts things would be very dull. In the book *Sixth Grade Can Really Kill You* this is what the author, Barthe DeClemens, demonstrates. Helen is the protagonist with a learning disability that triggers problems and conflicts: conflicts at home, conflicts at school, conflicts within herself.

The most crucial conflicts of the book are the ones she has with herself. Worrying, sulking, frowning, Helen fears that she will flunk the sixth grade. Her teacher has warned her parents of this. Helen fears her report card and her grades on it. She knows what is coming because of her troubles in school. "I didn't lift a book until report cards came back."

When Helen worries about school, she creates conflicts with herself. Helen worries that Mr. Marshall does not want her anymore because of the firecracker she sets off at the end of the book. She worries and frowns, making more problems and conflicts. Most of Helen's major conflicts stem from school and her reading difficulties.

Helen has conflicts with her mom that emphasize her reading difficulty. Helen argues with her mom about reading. "She kept telling me to please try and read without using my finger (Helen talking about mom). I kept telling her that if I didn't I would lose my place." Helen again tries to get out of reading practice with her mom. And then the reader finds Helen and mom arguing about same thing. Without a doubt, Helen's relationship is affected by her reading problem.

The writer establishes her topic, making an opening observation to hook the reader, and writes a thesis that sets complex sentence stems to establish the organization of the text.

The writer uses a direct quote although it isn't embedded clearly in the context of her paragraph.

The writer's topic statement uses excellent vocabulary (words) to make a strong claim and to expand upon its place in her discussion.