

Building an Effective Assessment System

Virginia Board of Education

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Superintendent, Henry County Schools

January 21, 2015



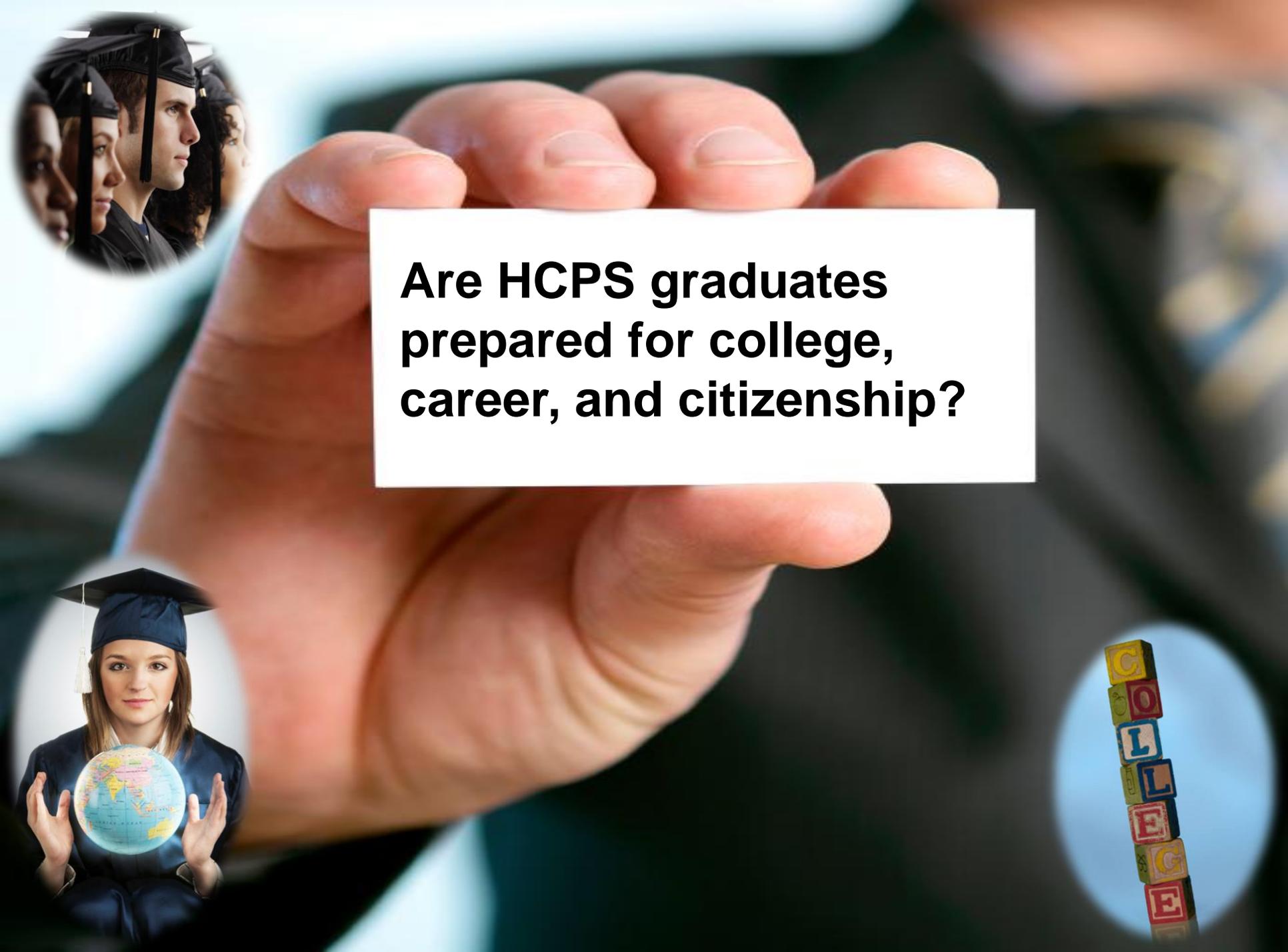
enVISION

2018

Henry County Public Schools

A Strategic Plan for our Future



A large, close-up image of a hand holding a white rectangular sign. The background is a blurred image of a person in a graduation cap and gown. In the top-left corner, there is a circular inset showing a group of graduates. In the bottom-left corner, there is a circular inset of a female graduate holding a glowing globe. In the bottom-right corner, there is a vertical stack of colorful alphabet blocks spelling out 'COLLEGE'.

**Are HCPS graduates
prepared for college,
career, and citizenship?**

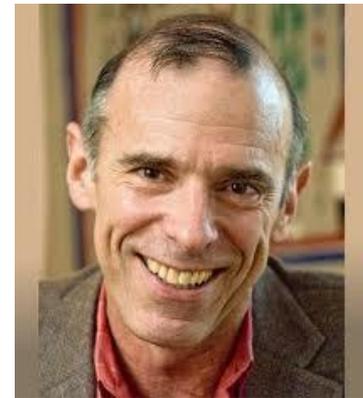
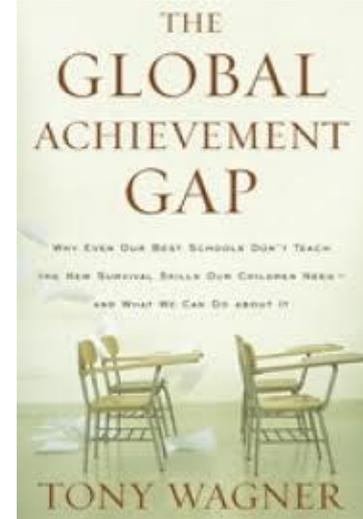
COLLEGE

“We value what we measure rather than measure what we value.”



What skills do graduates need to be successful?

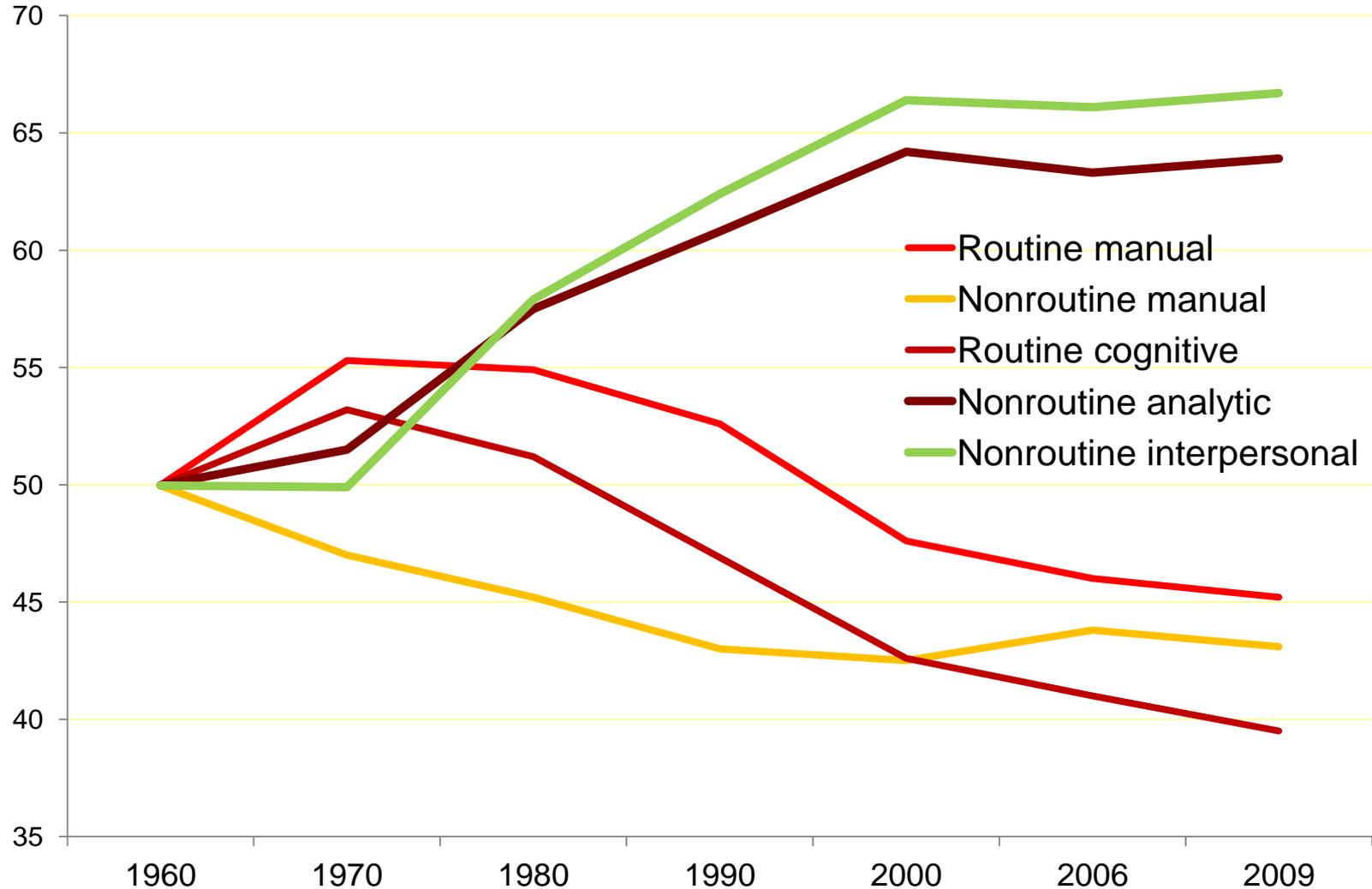
- Critical Thinking and Problem Solving
- Collaboration and Leadership
- Agility and Adaptability
- Initiative and Entrepreneurialism
- Effective Oral and Written Communication
- Accessing and Analyzing Information
- Curiosity and Imagination



Tony Wagner

The Changing Demand for Job Skills (United States)

Mean task input in percentiles of 1960 task distribution



Future Work Skills for 2020



Sense Making

Ability to determine the deeper meaning or significance of what is being expressed



Novel and Adaptive Thinking

Proficiency at thinking and coming up with solutions and responses beyond that which is rote or rule-based



Social Intelligence

Ability to connect to others in a deep and direct way, to sense and stimulate reactions, and desires interactions



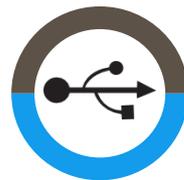
Transdisciplinary

Literacy in and ability to understand concepts across multiple disciplines



New Media Literacy

Ability to critically assess and develop content using new media forms, and to leverage the media for persuasive communication



Computational Thinking

Ability to translate vast amounts of data into abstract concepts and to understand data based reasoning



Cognitive Load

Ability to discriminate and filter information for importance, and to understand how to maximize cognitive functions



Design Mindset

Ability to represent and develop tasks and work processes for desired outcomes



Cross Cultural Competency

Ability to operate in different cultural settings and norms

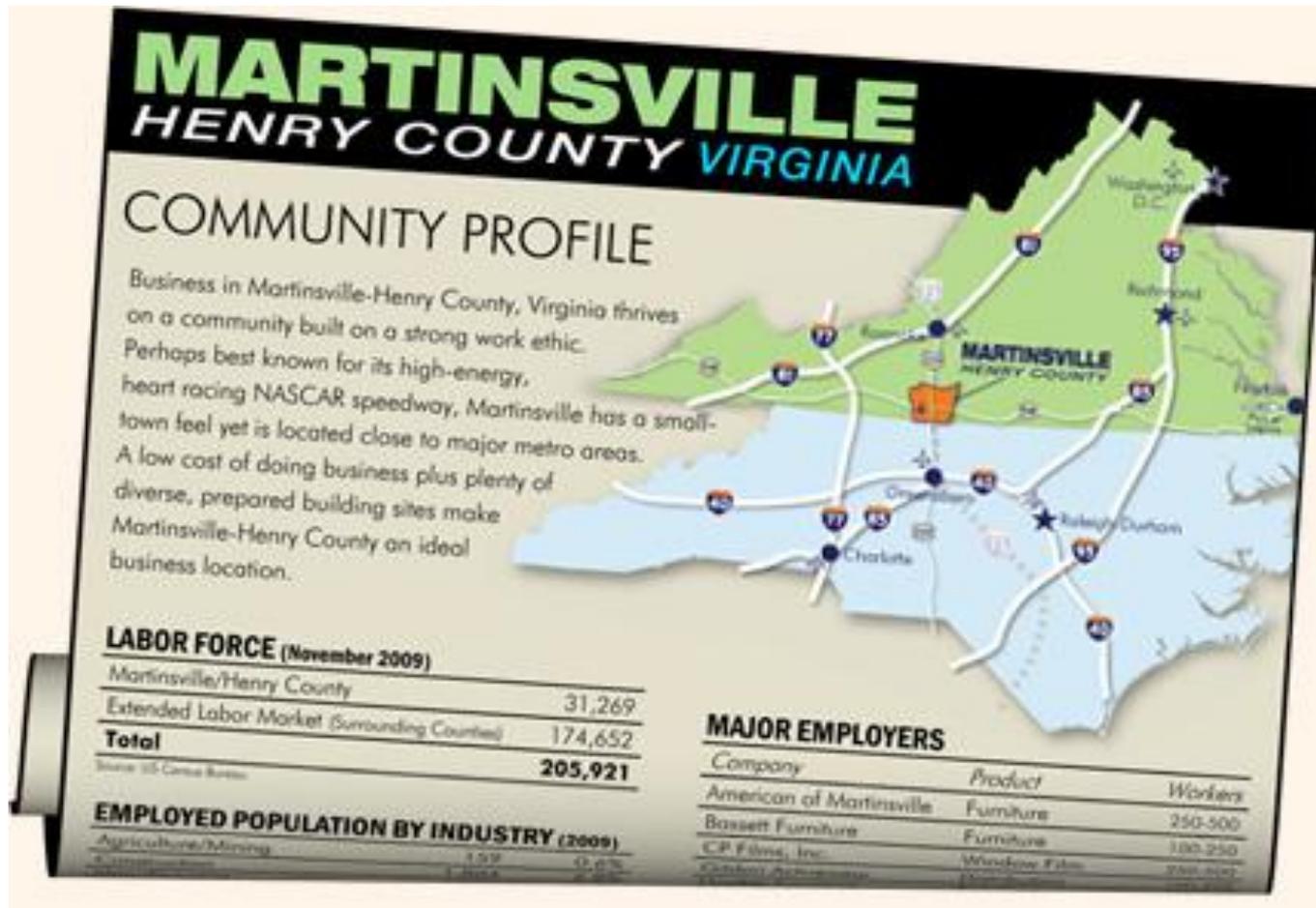


Virtual Collaboration

Ability to work productively, drive engagement, and demonstrate presence as a member of a virtual team

Preparing the Future Workforce

Advanced Manufacturing, Information Technology, and Healthcare



What skills are most important?



College and Career Readiness Skills

VISION — *Henry County Public Schools where critical thinking is expected, creativity is nurtured, technology and innovation are embraced, and learning is celebrated.*



Critical Thinking

Analyze ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

NOVICE Identify information, ideas, data, textual evidence, and/or objects to make statements based on background knowledge and/or observation.

EMERGING Identify and analyze information, ideas, data, textual evidence, and/or objects, while acknowledging another viewpoint or competing evidence/data (if applicable), to make inferences, draw conclusions, establish patterns, or solve problems referencing evidence.

PROFICIENT Analyze and evaluate information, ideas, data, textual evidence, and/or objects, while referencing other viewpoints or competing evidence/data (if applicable), to make inferences, draw conclusions, establish patterns, or solve problems in order to justify thinking/logic using relevant evidence.

EXEMPLARY Drawing on content-specific background knowledge to analyze and evaluate information, ideas, data, textual evidence, and/or objects, utilize other viewpoints or competing evidence/data (if applicable), to make inferences, draw conclusions, establish patterns, or solve problems in order to justify thinking/logic using relevant evidence and extend to related problems, texts, or other situations.

Collaboration

Work with others to complete a task or to progress toward a common goal.

NOVICE Given a set of instructions, members of the group work respectfully to fulfill roles and responsibilities in order to complete an assigned task.

EMERGING Given a set of parameters and resources, members of the group produce a product by developing a consensus-driven plan, assigning responsibilities, and frequently monitoring progress to accomplish the task.

PROFICIENT Given an idea, members of the group create a set of parameters and identify resources to produce a product by developing a consensus-driven plan, tapping into group member knowledge and out-of-school expertise (i.e. community experts), frequently monitoring progress to accomplish the task.

EXEMPLARY Members of a group develop an idea by planning a desired product, identifying appropriate resources, and connecting with outside experts to continually refine the idea, product, and process in order to accomplish a common goal.

Communication

Share information and ideas for a given purpose, task, and audience.

NOVICE Given a medium, convey information and ideas for a target

Creativity

Develop ideas, connections, and solutions to create something novel for an aesthetic and/or practical purpose.

NOVICE Given a set of parameters, explore and connect ideas, techniques,



Creating a Balanced Assessment System



Balanced Assessment System

“...thoughtfully employs multiple types of assessments, including, but not limited to, performance tasks, multiple choice, essay, etc.”

“A balanced assessment system is designed to improve learning during instruction and to measure both core subject mastery and 21st century skills.”



New Systems of Assessment Should:

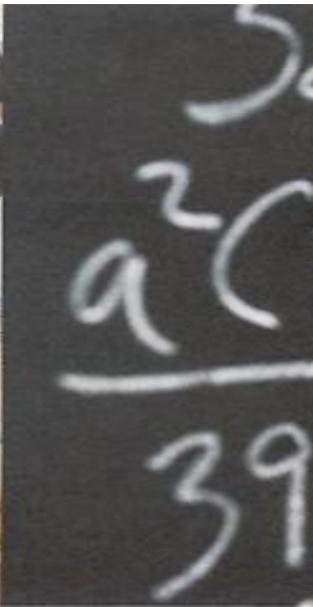
- Include locally implemented performance tasks as well as “on-demand” tests that are more sophisticated
- Involve teachers in design, review, and scoring of both kinds of assessments
- Provide information useful for developing curriculum and teaching
- Keep track of learning in many ways that support student agency and reflection
- Be used for improvement, not punishment

Changes in Assessment System in HCPS

- Scholastic Reading Inventory (SRI)
- ReadiStep
- Virginia Placement Test (VPT)
- Measures of Academic Progress (MAP)
- College Work Readiness Assessment (CWRA)
- Curriculum revision to include focus on the 4 C's
- Performance task development
- Professional Development
- Reporting to stakeholders



Measures of Academic Progress (MAP)

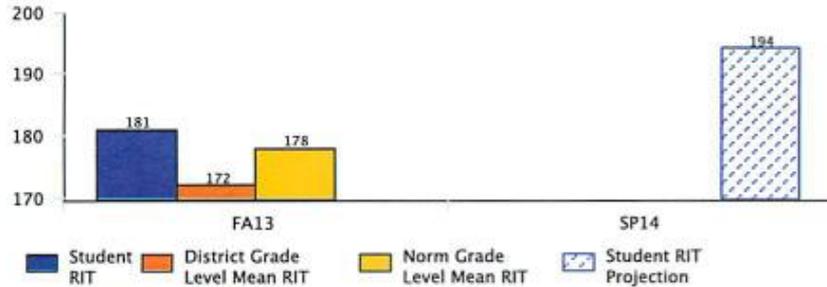




Student Progress Report

Term Rostered: Fall 2013-2014
 District:
 School:
 Growth Comparison Period: Fall to Spring

Mathematics

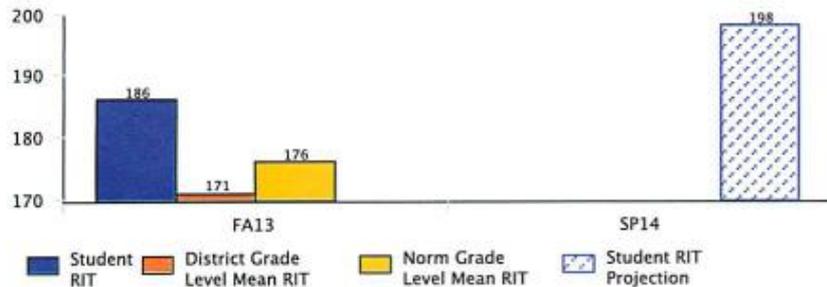


Term/Year	Grade	RIT (+/- Std Err)	RIT Growth	Growth Projection	Percentile Range
FA13	2	178-181-184			49-59-67

Mathematics Goals Performance - Fall 2013-2014

Number and Number Sense
 Patterns, Functions, and Algebra
 Measurement and Geometry
 LoAvg High
 HiAvg
 Computation and Estimation
 Probability and Statistics
 HiAvg Avg

Reading



Term/Year	Grade	RIT (+/- Std Err)	RIT Growth	Growth Projection	Percentile Range
FA13	2	183-186-189			68-74-80

Reading Goals Performance - Fall 2013-2014

Oral Language; Phonological Awareness; Units of Speech
 Reading
 Lexile® Range
 HiAvg High
 249-399L
 Phonetic Principles and Word Analysis
 Writing
 Avg Avg

Mathematics

MAP: Math 6+ VA 2009 / VA Mathematics K-8, HS: 2009

Summary	
Total Students With Valid Growth Test Scores	106
Mean RIT	219
Median RIT	221
Standard Deviation	13
District Grade Level Mean RIT	217.2
Students At or Above District Grade Level Mean RIT	61
Norm Grade Level Mean RIT	219.6
Students At or Above Norm Grade Level Mean RIT	57

	Lo %ile < 21		LoAvg %ile 21-40		Avg %ile 41-60		HiAvg %ile 61-80		Hi %ile > 80		Mean RIT (+/- Smp Err)	Median RIT	Std Dev	
	count	%	count	%	count	%	count	%	count	%				
Overall Performance														
MAP: Math 6+ VA 2009 / VA Mathematics K-8, HS: 2009	15	14%	25	24%	22	21%	32	30%	12	11%	218-219-220	221	13	
Goal Area														
Number and Number Sense	18	17%	20	19%	23	22%	32	30%	13	12%	217-218-220	222	13.9	
Computation and Estimation	17	16%	25	24%	25	24%	21	20%	18	17%	218-219-220	219	14	
Measurement	20	19%	26	25%	25	24%	20	19%	15	14%	217-218-220	218	15.4	
Geometry	20	19%	20	19%	27	25%	24	23%	15	14%	217-218-220	220	14.2	
Probability and Statistics	13	12%	19	18%	21	20%	24	23%	29	27%	220-222-224	223	18.4	
Patterns, Functions, and Algebra	18	17%	23	22%	27	25%	27	25%	11	10%	217-218-219	219	13.6	

Class/Teacher Report by Grade Broken into Goal Performance

Edit Display Options

141-150 151-160 161-170 171-180 181-190 191-200 201-210 211-220 221-230 231-240 →

Word Origins, Expand Vocabulary, Semantics

Apply Phonetics, Word Analysis, Context Clues ^

← 141-150 151-160 161-170 →

Reinforce

these skills & concepts

- Chooses the word with same initial consonant sound as words that would describe given pictures
- Identifies the initial consonant digraph (e.g., sh, th, wh, ch) of words shown in picture form
- Matches uppercase letters
- Matches uppercase letters to lowercase letters

Develop

these skills & concepts

- Identifies words using the same ending consonant blend as a given word
- Uses consonant digraphs (e.g., sh, th, wh, ch) to make meaningful words from word fragments
- Distinguishes real words from nonsense words
- Use basic elements of phonetic analysis to choose among similarly structured words to identify a picture
- Use basic elements of phonetic analysis to choose among the words that correctly identify a picture
- Uses semantics to choose the most appropriate word to complete a sentence
- Uses syntax to choose the phrase which best completes the given sentence
- Uses semantics to complete a

Introduce

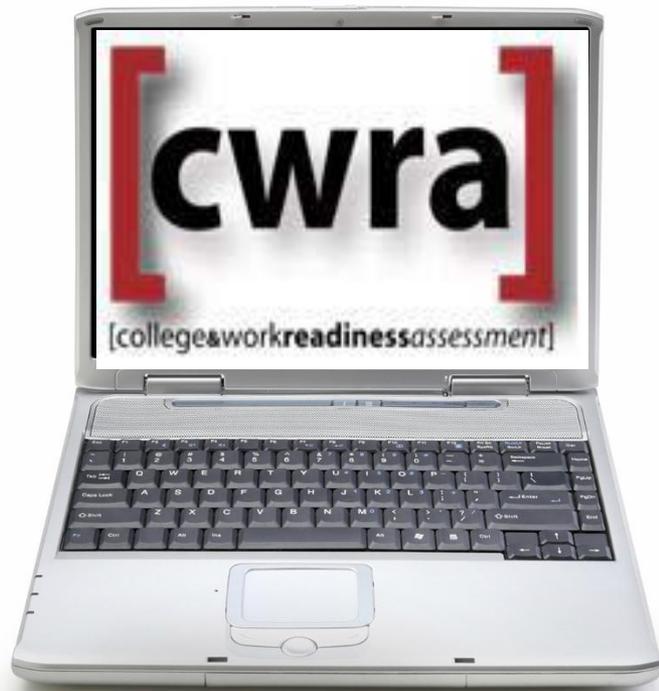
these skills & concepts

- Chooses the word with same initial consonant blend (bl, cr) as a given word
- Identifies words with the same short vowel sound
- Determines the number of words in a sentence
- Distinguishes among words that look similar
- Identifies words that fit into a given word family (i.e., sharing a common phonic element)
- Uses syntax to choose the phrase which best completes the given sentence
- Uses semantics to complete a sentence by choosing the adjective (term not used) that best fits the context of that sentence
- Uses semantics to complete a sentence by choosing the adverb

[cwra]

[college&workreadinessassessment]





“The College and Work Readiness Assessment (CWRA) presents realistic problems that require students to **analyze** complex materials varying in reliability and accuracy, and to **construct** written responses that demonstrate their abilities to **think** critically, **reason** analytically, **solve** problems and **communicate** clearly and cogently.”

The CWRA is designed to measure four sets of higher order skills

The CWRA measures in a holistic manner:

Critical thinking

Analytic reasoning

Problem solving

Written communication



New Tech Network

New Tech Network

15 years of evolving principles centered on:

- Culture that Empowers
- Teaching that Engages
- Technology that Enables

The image shows the exterior of a modern school building. The building has a prominent orange-brown facade on the left side, where the words "NEW TECHNOLOGY HIGH SCHOOL" are mounted in large, raised, metallic letters. To the right, there is a white overhang or entrance canopy supported by wooden beams. The sky is a clear, bright blue.

NEW TECHNOLOGY
HIGH SCHOOL

Profile of an NTN Graduate...



THINK
critically



COMMUNICATE
effectively



WORK
collaboratively



LEARN
how to learn...

...through mastery of rigorous academic content

Warrior TECH

A STEM Academy

Curriculum Development



Curriculum Implementation Plan

Subject Area	Phase I: Develop stages 1 and 2	Phase II: Implement stages 1 and 2, pilot performance tasks, gather feedback	Phase III: Revise based on feedback and develop rubrics for performance tasks	Phase IV: Review student products, revise performance tasks and rubrics	Phase V: Ongoing revisions based on feedback from teachers
English (K-12)	2013-2014 Completed!	2014-2015	2014-2015	2015-2016	Ongoing
Mathematics, excluding speciality courses (K-12)	2013-2014 Completed!	2014-2015	2014-2015	2015-2016	Ongoing
Health & PE (K-12)	2013-2014 Completed!	2014-2015	2014-2015	2015-2016	Ongoing
Specialty Courses in Mathematics and English	2014-2015	2015-2016	2015-2016	2016-2017	Ongoing
Science (K-12)	2014-2015	2015-2016	2015-2016	2016-2017	Ongoing
History / Social Science (K-12)	2014-2015	2015-2016	2015-2016	2016-2017	Ongoing
Fine Arts (K-12)	2014-2015	2015-2016	2015-2016	2016-2017	Ongoing

Integers
STAGE 1: CURRICULUM

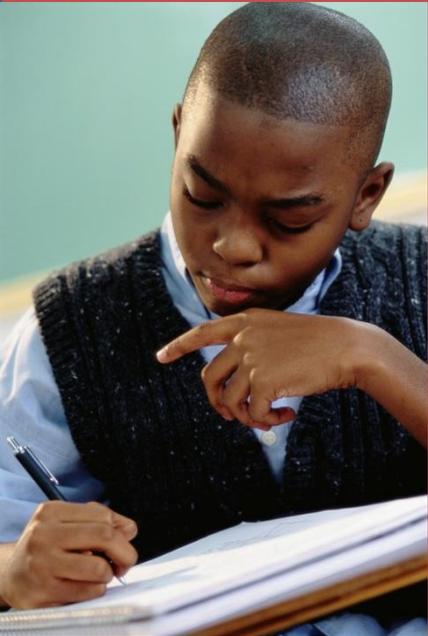


Unit Focus	Long Term Transfer Goals	College and Career Readiness
Integers	<ul style="list-style-type: none"> ● Demonstrate automaticity in basic computation/number sense so that they can focus on the interesting aspects of the problem. ● Based on an understanding of <i>any</i> problem, initiate a plan, execute it, and evaluate the reasonableness of the solution ● Use appropriate tools/strategies to deepen understanding of mathematical concepts ● Communicate effectively based on purpose, task, and audience using appropriate vocabulary 	<p>Critical Thinking: Novice Communication: Novice</p>
Standards of Learning	Understandings	Essential Questions
<p>6.3 The student will</p> <p>a) identify and represent integers;</p> <p>b) order and compare integers; and</p> <p>c) identify and describe absolute value of integers.</p>	<ul style="list-style-type: none"> ● Objects and sets of objects can be given numerical descriptions. ● Numbers can be classified by their attributes. ● The same value can be represented in multiple 	<ul style="list-style-type: none"> ● How do I say/write/show this object/number or sets of objects/numbers? ● How are these numbers the same/different?

Assessment Development

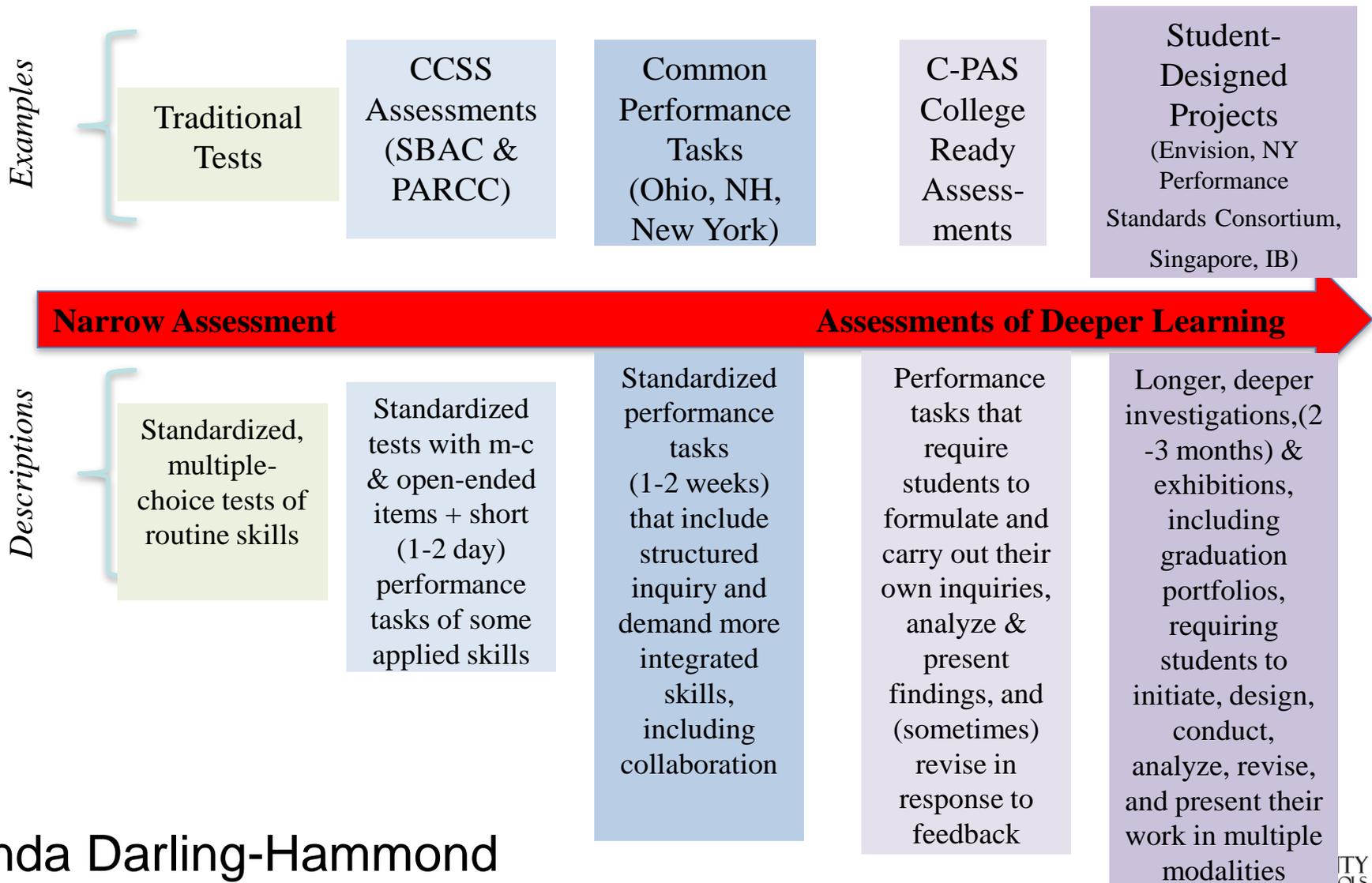


Performance Assessment



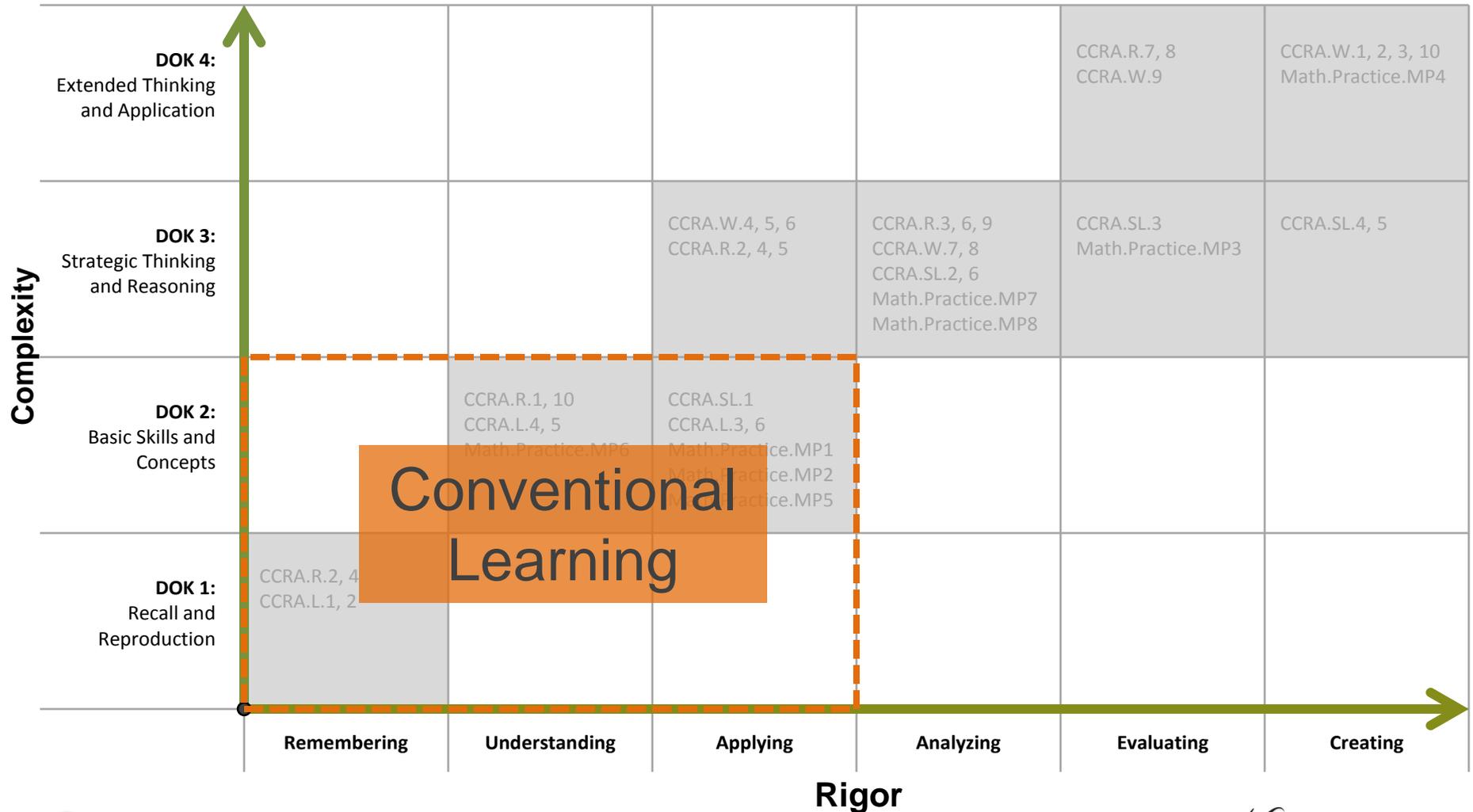
Exhibitions, investigations, demonstrations, written or oral responses, journals, and portfolios.

Assessment Continuum

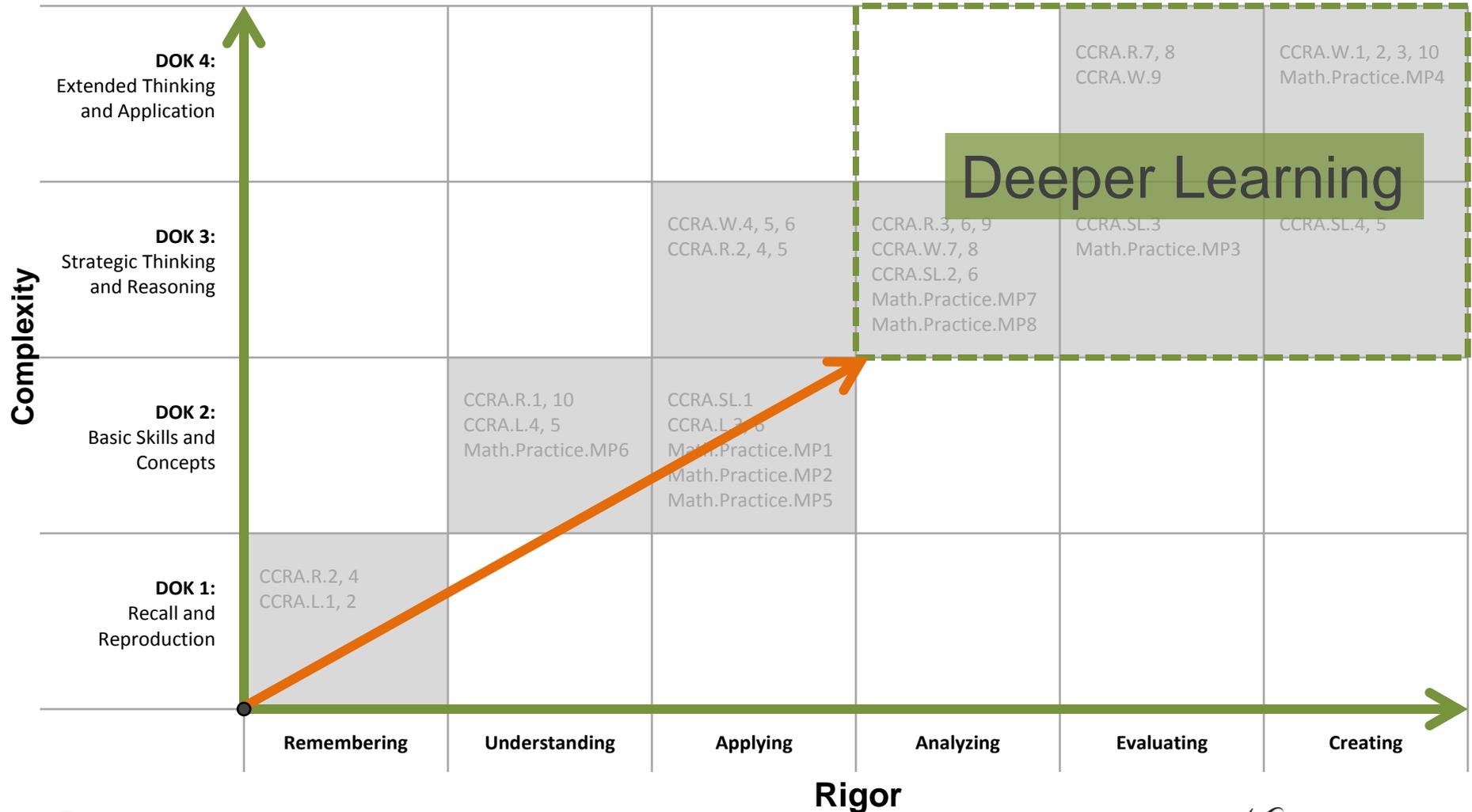


Linda Darling-Hammond

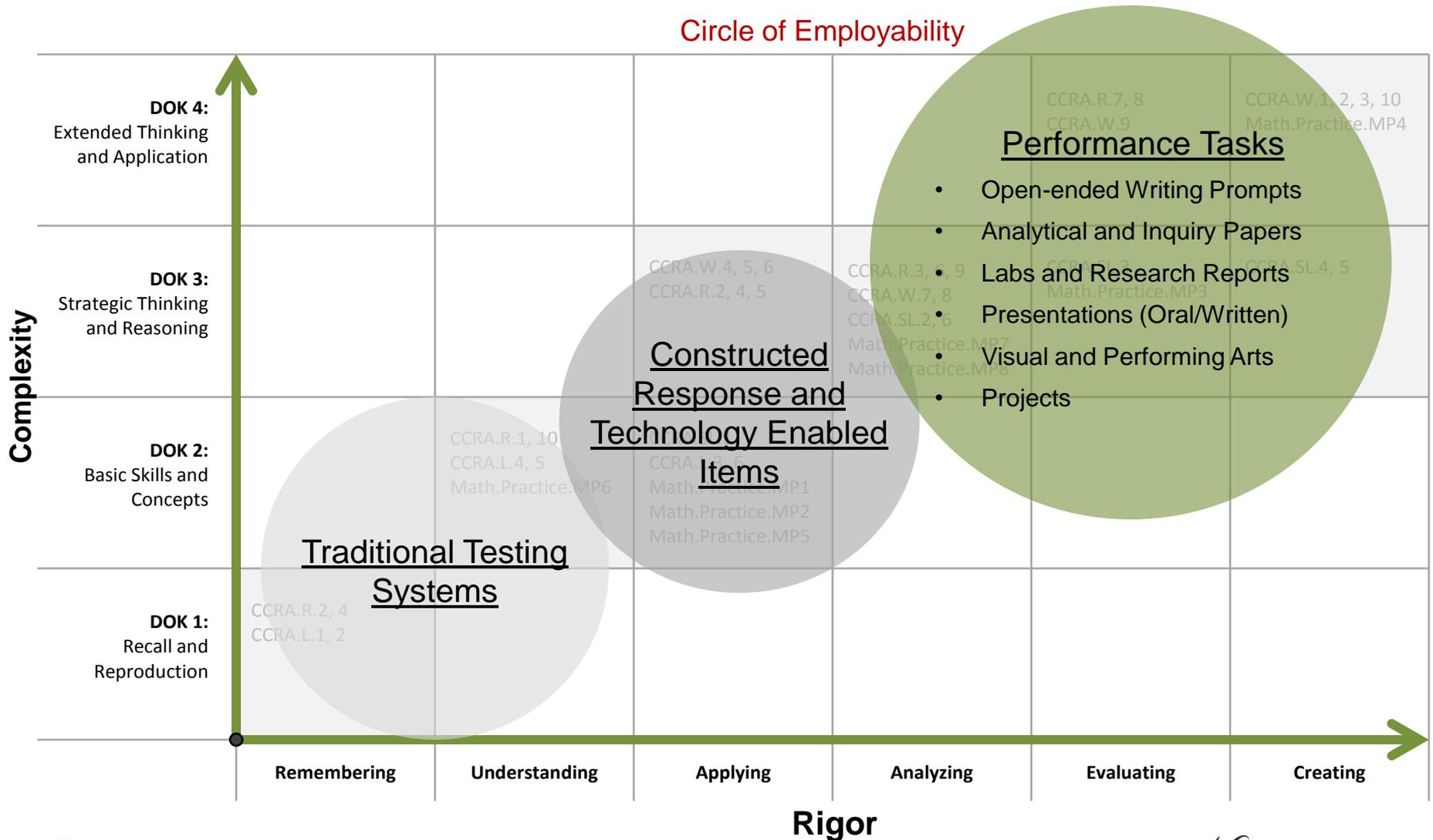
Focus: Think and Know



Focus: Do and Show



Assessment Drives Instruction



Criteria for Performance Tasks

- Task design is aligned to standards and focused on a targeted set of outcomes
- Tasks allow for student choice and voice
- Tasks demand students to produce authentic work
- Tasks are embedded in the curriculum
- Tasks enable multiple opportunities and ways to show proficiency

Authentic Task

You are a new aide to a Congresswoman interested in introducing a bill on banning plastic bags in stores. She is scheduled to give a speech to garner support for her bill. You have been given the task of researching the issue of paper versus plastic and to come up with the copy for her speech. To complete this task, you will need to do the following:

- Using 3-4 sources as evidence, write a 2 minute speech that takes a position on the issue and addresses potential counterarguments
- Share a draft of your speech with two of your peers
- Revise your speech
- Practice your final speech and submit a video or podcast of your speech to your Congresswoman for approval

This measure requires research of sources, analysis of evidence, and development of a solution

English: SOL 6.6, 6.7 – Nonfiction and Writing

Students will break into small groups and research one of the court cases outlined below. The main question they are trying to answer is “Was justice served?” They will formulate their findings into an essay using three points of either why they thought justice was served or why they thought justice was not served. Their opinion will have to be backed up by factual information they researched about the court case. The students will have a rubric outlining what is expected of them, including MLA format for information used from research.

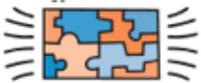
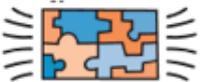
- Amanda Knox -Casey Anthony -George Zimmerman
- Other cases approved by teacher

Mathematics: SOL K.9- Telling Time

You are super excited to go to the movies. Here is a list of movie times. (NOTE: Give students a table listing movie titles and times that start either at the hour or half hour). Have each student use a blank analog clock to draw in the hour hand and minute hand for the movie he/she would like to see. Then, students pair up to figure out what movie the other person wants to see based on the clock he/she drew. My partner wants to see _____ . Did the analog clock display communicate the movie title the student wanted to see? Explain why or why not.

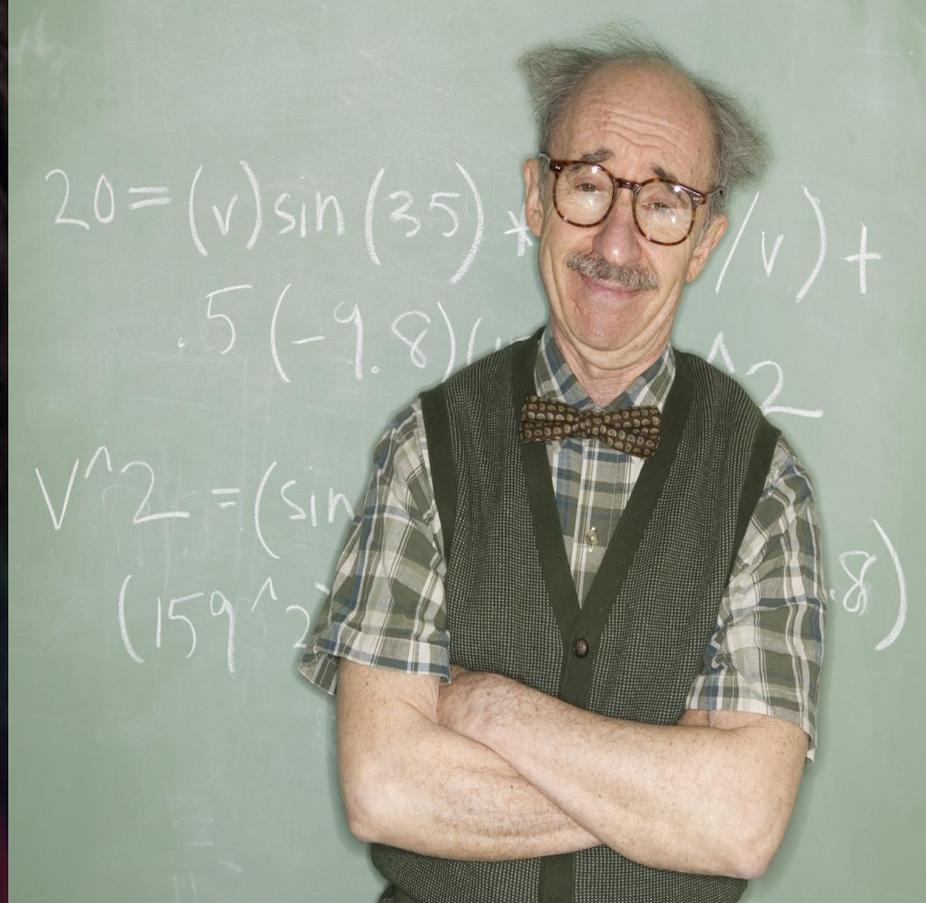


An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1	Emerging - 2	Proficient - 3	Exemplary – 4
<p>I can decipher information and ask meaningful questions.</p> <p>Information and Discovery</p>	<p>Student shows an inability to explain the problem, investigation, or challenge in his/her own words; creates a small number of questions; and questions are unclear.</p> 	<p>Defines the problem, investigation, or challenge in his/her own words, but explanation is a little unclear; creates a small number of related questions; and questions are sometimes clear.</p> 	<p>Clearly explains the problem, investigation, or challenge in his/her own words; creates an acceptable number of questions; and questions are usually clear.</p> 	<p>Provides a thorough description of the problem, investigation, or challenge, including important details, in his/her own words. Creates a large number of clear, powerful, open, thought-provoking questions.</p> 
<p>I can go through the steps to solve a problem.</p> <p>Problem Solving/ Solution Finding</p>	<p>Student is beginning to show understanding of how to formulate ideas regarding how to solve a problem, meet a challenge, or answer an inquiry question; is building the foundation to develop solutions and explain ideas.</p> 	<p>Explains ideas about how to best solve the problem, meet the challenge, or answer the inquiry question, but the explanation is a little unclear. Describes why their ideas make sense, but description could be more convincing.</p> 	<p>Explains ideas about how to best solve the problem, meet the challenge, or answer the inquiry question. Clearly describes why their ideas make sense.</p> 	<p>Offers a very clear and convincing description of how to best solve the problem, meet the challenge, or answer the inquiry question. Tests ideas, assesses the outcome, and decides if a new solution is necessary</p> 



Professional Development for Teachers



You want us to do **WHAT?**



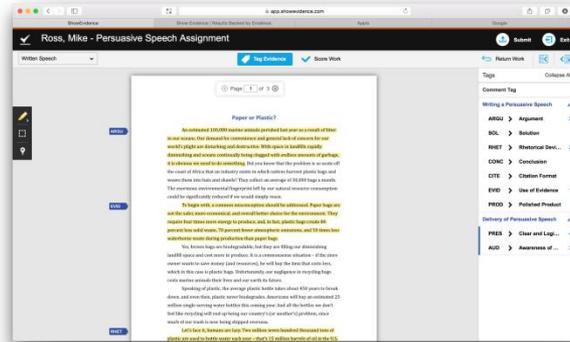
Rubric Development
Common Assessments
Facilitative Peer Review
Assessment Practices
Performance Task Development

Emphasis on Evaluating Real Work

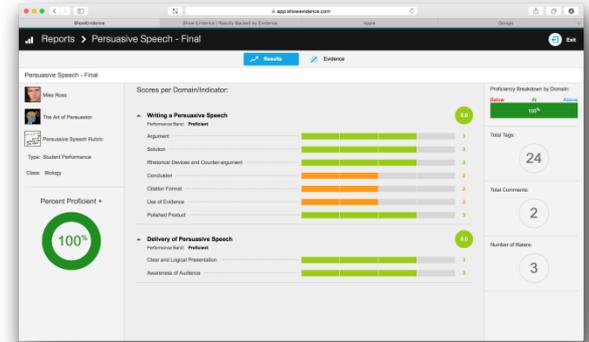
Documents, Presentations, Video, Images, Audio, Web Sites, and more



Submit Real Work Products



Tag Evidence Based on Rubric Criteria



View Results and Criteria-based Feedback

**Reporting to
stakeholders?**



Measures of Success



Over the next several years, we will work to ensure that:

- **All students will meet or exceed reading standards.**

This will be measured in grades 3, 5, 8, and 11.

- **All students will meet or exceed mathematics standards.**

This will be measured in grades 3 through 8.

Students in eleventh grade will complete Algebra II with a “C” or better.

- **All students will meet or exceed writing standards.**

- **All students will graduate on time.**

- **More students will earn an advanced studies diploma.**

- **More students will earn an industry certification.**

Next Steps for HCPS

- Continue to develop required “cornerstone” performance tasks for specific grade levels and courses.
- Develop guidelines for portfolio and/or culminating assessments for grades 5, 8, and 12 that require students to demonstrate mastery of the 4 C’s.
- Expand student led conferences to all schools.
- Include student mastery of the 4 C’s as a part of course and subject grades.
- Explore standards-based grading.



Questions?

