

Instructional Design

Creating a system of instructional design is a critical process that we must develop and implement throughout HUSD. The previous instructional system focused on specific strategies to address assessment regarding the expected outcomes of the State and Federal API/AYP requirements. The former system failed to produce the learning potential of students creating an achievement gap that cannot be bridged. It has become evident that a design must be developed to meet the needs of our students for the 21st Century.

California has adopted the new standards to begin this process of invigorating the educational system. It is recognized that our students are not prepared to meet the challenges of the 21st Century. Students must develop and demonstrate critical thinking, collaboration, creativity, and communication – all the skills that have been identified by multiple researchers for students to be successful in their future careers. Adoption and use of new standards are irrelevant to the creation of this focus and direction of the educational system. The system itself needs to be refurbished with new purpose. Implementation of new standards will not change our educational success unless we are able to systematically change the primary philosophical direction of learning. Our teaching practice must change!

In order to be effective in delivering the standards, we must adopt the practice of increasing depth of knowledge (DOK) for

students. Designing an effective model of instruction must be a priority in determining the scope of what we do as a district. We have an incredible “once in a lifetime opportunity” to change the course of history in our educational practice.

It is the purpose in creating a system of instructional design to synthesize and identify the instructional focus and its impact on student learning. Impact is defined as measurable outcomes for learning or lack of learning by students. The instructional design prescribed through the professional learning community (PLC) process enables participants to create clarity,

You can design and create, and build the most wonderful place in the world. But it takes people to make the dream a reality.

-Walt Disney

which in turn guides the actions of the learning process, assisting in developing accurate measures for accountability. These measures will produce strategies to evaluate learning outcomes and address lack of learning to meet the needs of all students.

The implementation of the standards for English, math, and science will produce a cadre of skills students must acquire and master for the 21st Century. The scope of skills needed by students is intensive but necessary for their development. It is evident that there is a relationship and a convergence of key fundamental abilities for students. In the table below, the Stanford Graduate School of Education has identified critical areas in Mathematical, Science/Engineering, and English Practices that lend themselves as important skills that all disciplines should be emphasizing as they integrate the 4C’s in instruction.

Stanford Graduate School of Education Critical Areas

Support analysis of a range of grade level, complex texts with evidence
Construct viable and valid arguments from evidence and critique reasoning of others
Engage in argument from evidence

This system for instructional design emphasizes these critical skills and provides teachers a strategic focus for instruction. If students master and apply these skills, they will be prepared for college and career.

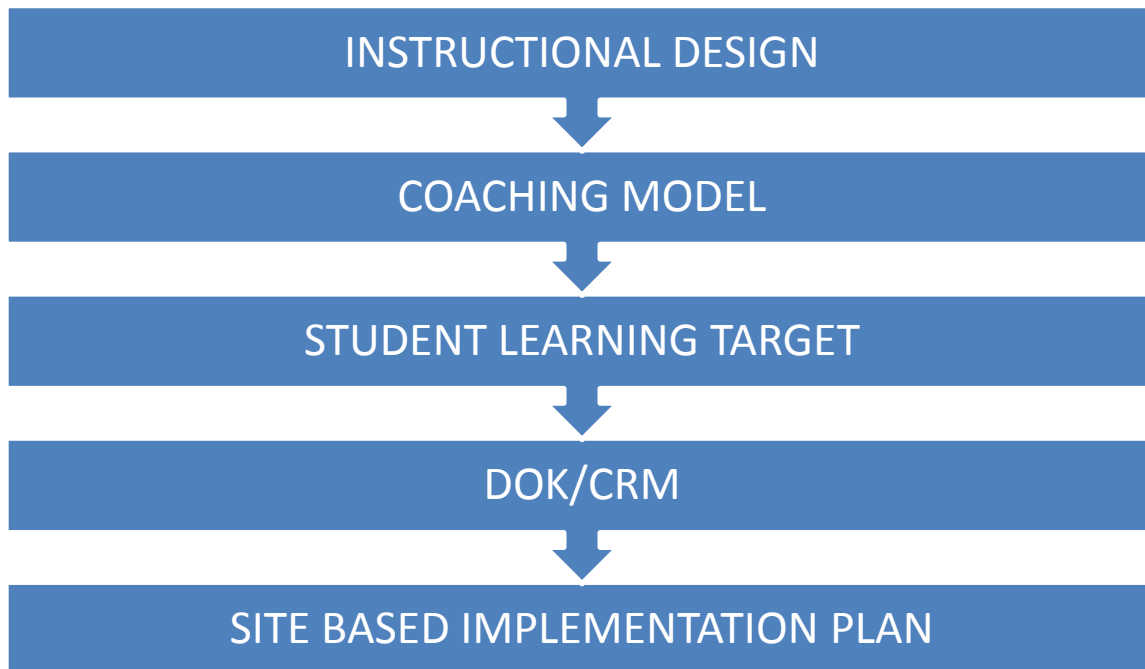
Identifiable measures for 21st Century learning are not exclusive to a specific academic discipline and instead encompass all courses we teach. The PLC process will create a strategic focus for learning, thus, enabling teachers to collaborate, communicate, and evaluate student learning outcomes.

A change in approach to teaching new state standards has to happen in order to increase the depth of knowledge for our students. As a tool, we will be using the Cognitive Rigor Matrix (CRM) to guide this transition. The CRM incorporates Bloom's Taxonomy and Webb's Depth of Knowledge to provide educators a lens on creating more cognitively engaging and challenging tasks. The CRM identifies recall and reproduction, skills and concepts, short-term strategic thinking and extending thinking as measuring goals for teaching. This tool

provides criteria for teachers to analyze the alignment of standards and assessments.

Depth of knowledge provides a frame of reference to describe how students engage with content by utilizing four levels that increase with complexity. The system of instructional design includes CRM- Level 3 as the goal for student engagement with the 4C's. CRM identifies 70% of the abilities students will need to know and apply for the upcoming Smarter Balanced Assessment. Most importantly, it addresses the skills students need to be ready for college and career.

Former measurements using California Standards Test (CST) clusters and proficiency bands have never accurately measured college and career readiness. As a district we want clearly identified evidence of student learning that will lead to success at college or in the career of their choice. This evidence must be discretely defined for measurement. Performance outcomes are critical as an ending measure for student learning.



Action Plan Monitoring

Single Assessments

- *September* – Establish a base for student growth
- *January* – Increase individual student learning by an average of 30%
- *May* – Increase individual student learning by an average of 75% over September base

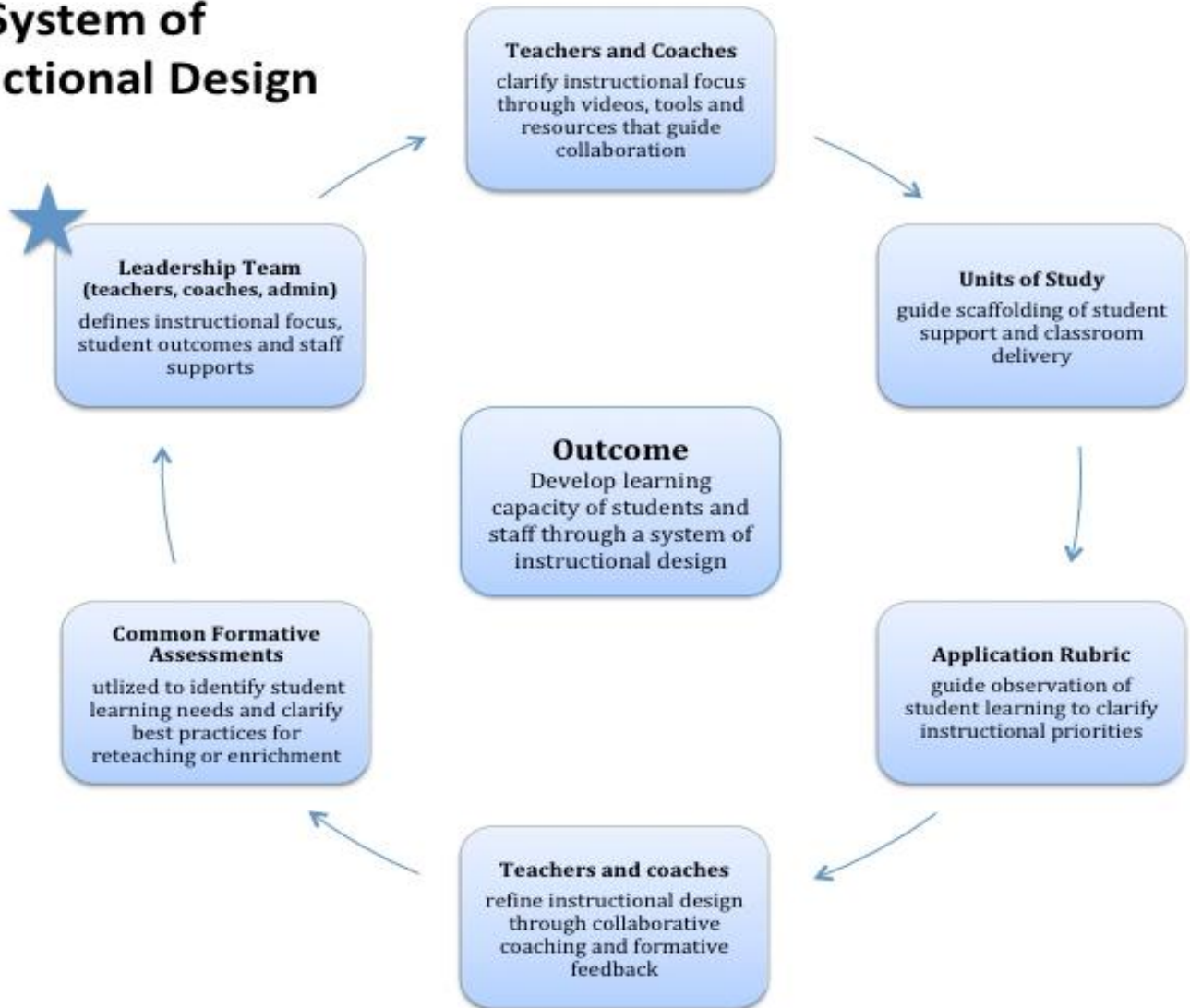
Implementation Plan Verification

- Sites complete the 4 C's self assessment form (See p 10-11 of the Instructional Design Plan)
- Taken in September and repeated in January and May to measure growth
- Verified by Educational Services teams

Exemplar Tool

- Similar to WASC self study, based on SPSA and LCAP
- See Appendix 2 for model template
- Verified by Extended Cabinet teams during the spring

System of Instructional Design

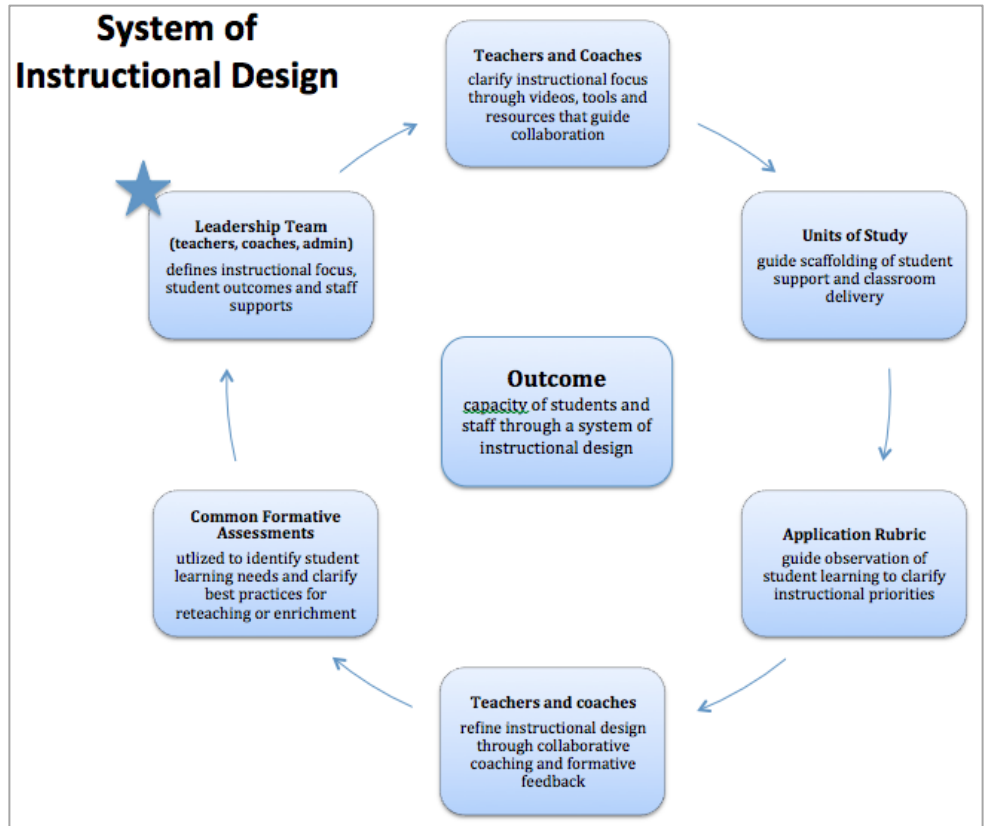


Instructional Coaches

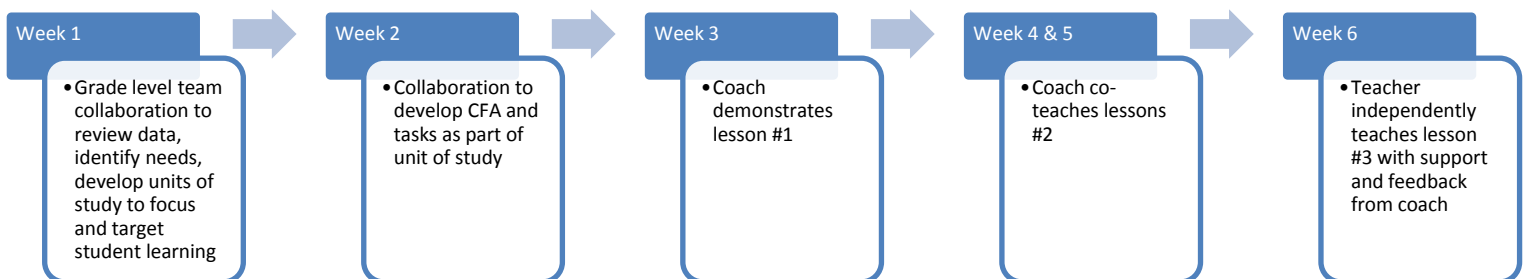
Hesperia Unified has been committed to instructional coaching using teachers on assignment (TOA) since 2004. Research supports the need for continual follow-up and instructional coaching based on site needs to support effective implementation for professional development. The use of coaches as resources will increase teacher knowledge of 21st Century skills and new state standards by balancing curriculum, instruction, and assessment. Coaching support will help teachers focus and improve their craft.

In an effort to transition to 21st Century skills, Educational Services is refining the current model to allow the instructional design to evolve and flourish with renewed purpose and structure. In pursuit of continuous improvement, the number of instructional coaches is being increased to support and benefit all classroom teachers. Students will benefit from more engaging lessons and innovative strategies. Other benefits include:

- Less time out of class for staff development
- Improved teacher collaboration
- Opportunities to develop units of study with highly trained coaches
- High quality implementation of intervention with additional classroom support to re-teach lessons in response to targeted student needs
- Increase the understanding of analysis and use of assessment for instructional decision-making
- Targeted support for shifting teaching strategies to 21st Century skills and effectively implement new state standards
- Develop trust that fosters school culture by building relationships
- Saturate sites with real time support in classrooms
- Empower teachers with PLC model for continual improvement



Example of Site-Based Instructional Coaching Support Plan



Student Learning Targets

The following learning targets support the district goal to **“Provide every opportunity for our students to be college and career ready.”** These targets are to be utilized by school sites as they implement, monitor and assess student learning.

Learning Targets:	Shifts in Learning: Student Outcomes
1. Critical Thinking	<ul style="list-style-type: none"> ➤ <u>Evidence-Based Claims and Conjectures</u>: Students analyze information, apply reasoning, and use problem solving to make a conclusion. ➤ <u>Close read, complex, grade level texts</u>: Students access complex, grade level text to identify, interpret and integrate relevant information.
2. Collaboration	<ul style="list-style-type: none"> ➤ <u>Structured collaborative conversations</u>: Students effectively work in pairs or groups on a clearly defined task, proactively ask and respond to questions, and justify and defend conclusions and solutions with evidence. Students engage in elaborated responses extending learning tasks and lesson concepts.
3. Communication	<ul style="list-style-type: none"> ➤ <u>Communicate using precise academic language</u>: Students speak and write clearly and persuasively using academic language to convey understanding, share ideas and critique the reasoning of others. Students communicate with and to a range of audiences, as they demonstrate transliterate, global communication skills.
4. Creativity	<ul style="list-style-type: none"> ➤ <u>Think and work creatively to demonstrate originality, inventiveness and innovation through elaboration, analysis and evaluation</u>: Students conceptualize and creatively solve real world predictable and unpredictable situations, through the synthesis of diverse perspectives and multiple resources.

Hess' Cognitive Rigor Matrix - Reading

Revised Bloom's Taxonomy	Webb's DOK Level 1 Recall & Reproduction	Webb's DOK Level 2 Skills & Concepts	Webb's DOK Level 3 Strategic Thinking/ Reasoning	Webb's DOK Level 4 Extended Thinking
Remember Retrieve knowledge from long-term memory, recognize, recall, locate, identify	<ul style="list-style-type: none"> Recall, recognize, or locate basic facts, details, events, or ideas explicit in texts Read words orally in connected text with fluency & accuracy Define terms 	77% of Smarter Balanced Assessments will require these skills for all content areas		
Understand Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion, predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> Identify or describe literary elements (characters, setting, sequence, etc.) Select appropriate words when intended meaning/definition is clearly evident Describe/explain who, what, where, when, or how 	<ul style="list-style-type: none"> Specify, explain, show relationships; explain why, cause-effect Give non-examples/examples Summarize results, concepts, ideas Make basic inferences or logical predictions from data or texts Identify main ideas or accurate generalizations of texts Locate information to support explicit-implicit central ideas 	<ul style="list-style-type: none"> Explain, generalize, or connect ideas using supporting evidence (quote, example, text reference) Identify/make inferences about explicit or implicit themes Describe how word choice, point of view, or bias may affect the readers' interpretation of a text 	<ul style="list-style-type: none"> Explain how concepts or ideas specifically relate to <i>other</i> content domains or concepts Develop generalizations of the results obtained or strategies used and apply them to new problem situations
Apply Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> Use language structure (pre/suffix) or word relationships (synonym/antonym) to determine meaning of words 	<ul style="list-style-type: none"> Use context to identify the meaning of words/phrases Obtain and interpret information using text features 	<ul style="list-style-type: none"> Apply a concept in a new context 	<ul style="list-style-type: none"> Illustrate how multiple themes (historical, geographic, social) may be interrelated
Analyze Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct (e.g., for bias or point of view)	<ul style="list-style-type: none"> Identify whether specific information is contained in graphic representations (e.g., map, chart, table, graph, T-chart, diagram) or text features (e.g., headings, subheadings, captions) 	<ul style="list-style-type: none"> Categorize/compare literary elements, terms, facts, details, events Identify use of literary devices Analyze format, organization, & internal text structure (signal words, transitions, semantic cues) of different texts Distinguish: relevant-irrelevant information; fact/opinion Identify characteristic text features; distinguish between texts, genres 	<ul style="list-style-type: none"> Analyze information within data sets or texts Analyze interrelationships among concepts, issues, problems Analyze or interpret author's craft (literary devices, viewpoint, or potential bias) to critique a text Use reasoning, planning, and evidence to support inferences 	<ul style="list-style-type: none"> Analyze multiple sources of evidence, or multiple works by the same author, or across genres, time periods, themes Analyze complex/abstract themes, perspectives, concepts Gather, analyze, and organize multiple information sources Analyze discourse styles
Evaluate Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> Cite evidence and develop a logical argument for conjectures Describe, compare, and contrast solution methods Verify reasonableness of results Critique conclusions drawn 	<ul style="list-style-type: none"> Evaluate relevancy, accuracy, & completeness of information from multiple sources Draw & justify conclusions Apply understanding in a novel way, provide argument or justification for the application
Create Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, produce		<ul style="list-style-type: none"> Generate conjectures or hypotheses based on observations or prior knowledge and experience 	<ul style="list-style-type: none"> Synthesize information within one source or text Develop a complex model for a given situation Develop an alternative solution 	<ul style="list-style-type: none"> Synthesize information across multiple sources or texts Articulate a new voice, alternate theme, new knowledge or perspective

Hess' Cognitive Rigor Matrix - Writing

Revised Bloom's Taxonomy	Webb's DOK Level 1 Recall & Reproduction	Webb's DOK Level 2 Skills & Concepts	Webb's DOK Level 3 Strategic Thinking/ Reasoning	Webb's DOK Level 4 Extended Thinking
Remember Retrieve knowledge from long-term memory, recognize, recall, locate, identify		77% of Smarter Balanced Assessments will require these skills for all content areas		
Understand Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion), predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> Describe or define facts, details, terms Select appropriate words to use when intended meaning/definition is clearly evident Write simple sentences 	<ul style="list-style-type: none"> Specify, explain, show relationships; explain why, cause-effect Give non-examples/examples Take notes; organize ideas/data Summarize results, concepts, ideas Identify main ideas or accurate generalizations of texts 	<ul style="list-style-type: none"> Explain, generalize, or connect ideas using supporting evidence (quote, example, text reference) Write multi-paragraph composition for specific purpose, focus, voice, tone, & audience 	<ul style="list-style-type: none"> Explain how concepts or ideas specifically relate to <i>other</i> content domains or concepts Develop generalizations of the results obtained or strategies used and apply them to new problem situations
Apply Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> Apply rules or use resources to edit specific spelling, grammar, punctuation, conventions, word use Apply basic formats for documenting sources 	<ul style="list-style-type: none"> Use context to identify the meaning of words/phrases Obtain and interpret information using text features Develop a text that may be limited to one paragraph Apply simple organizational structures (paragraph, sentence types) in writing 	<ul style="list-style-type: none"> Revise final draft for meaning or progression of ideas Apply internal consistency of text organization and structure to composing a full composition Apply a concept in a new context Apply word choice, point of view, style to impact readers' interpretation of a text 	<ul style="list-style-type: none"> Select or devise an approach among many alternatives to research a novel problem Illustrate how multiple themes (historical, geographic, social) may be interrelated
Analyze Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct (e.g., for bias, point of view)	<ul style="list-style-type: none"> Decide which text structure is appropriate to audience and purpose 	<ul style="list-style-type: none"> Compare literary elements, terms, facts, details, events Analyze format, organization, & internal text structure (signal words, transitions, semantic cues) of different texts Distinguish: relevant-irrelevant information; fact/opinion 	<ul style="list-style-type: none"> Analyze interrelationships among concepts, issues, problems Apply tools of author's craft (literary devices, viewpoint, or potential dialogue) with intent Use reasoning, planning, and evidence to support inferences made 	<ul style="list-style-type: none"> Analyze multiple sources of evidence, or multiple works by the same author, or across genres, or time periods Analyze complex/abstract themes, perspectives, concepts Gather, analyze, and organize multiple information sources
Evaluate Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> Cite evidence and develop a logical argument for conjectures Describe, compare, and contrast solution methods Verify reasonableness of results Justify or critique conclusions 	<ul style="list-style-type: none"> Evaluate relevancy, accuracy, & completeness of information from multiple sources Draw & justify conclusions Apply understanding in a novel way, provide argument or justification for the application

Hess' Cognitive Rigor Matrix – Math and Science

Revised Bloom's Taxonomy	Webb's DOK Level 1 Recall & Reproduction	Webb's DOK Level 2 Skills & Concepts	Webb's DOK Level 3 Strategic Thinking/ Reasoning	Webb's DOK Level 4 Extended Thinking
Remember Retrieve knowledge from long-term memory, recognize, recall, locate, identify	<ul style="list-style-type: none"> Recall, observe, & recognize facts, principles, properties Recall/ identify conversions among representations or numbers (e.g., customary and metric measures) 	70% of Smarter Balanced Assessments will require these skills for math and science		
Understand Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion (such as from examples given), predict, compare/contrast, match like ideas, explain, construct models	<ul style="list-style-type: none"> Evaluate an expression Locate points on a grid or number on number line Solve a one-step problem Represent math relationships in words, pictures, or symbols Read, write, compare decimals in scientific notation 	<ul style="list-style-type: none"> Specify and explain relationships (e.g., non-examples/examples; cause-effect) Make and record observations Explain steps followed Summarize results or concepts Make basic inferences or logical predictions from data/observations Use models /diagrams to represent or explain mathematical concepts Make and explain estimates 	<ul style="list-style-type: none"> Use concepts to solve <u>non-routine</u> problems Explain, generalize, or connect ideas <u>using supporting evidence</u> Make <u>and justify</u> conjectures Explain thinking when more than one response is possible Explain phenomena in terms of concepts 	<ul style="list-style-type: none"> Relate mathematical or scientific concepts to other content areas, other domains, or other concepts Develop generalizations of the results obtained and the strategies used (from investigation or readings) and apply them to new problem situations
Apply Carry out or use a procedure in a given situation; carry out (apply to a familiar task), or use (apply) to an unfamiliar task	<ul style="list-style-type: none"> Follow simple procedures (recipe-type directions) Calculate, measure, apply a rule (e.g., rounding) Apply algorithm or formula (e.g., area, perimeter) Solve linear equations Make conversions among representations or numbers, or within and between customary and metric measures 	<ul style="list-style-type: none"> Select a procedure according to criteria and perform it Solve routine problem applying multiple concepts or decision points Retrieve information from a table, graph, or figure and use it solve a problem requiring multiple steps Translate between tables, graphs, words, and symbolic notations (e.g., graph data from a table) Construct models given criteria 	<ul style="list-style-type: none"> Design investigation for a specific purpose or research question Conduct a designed investigation Use concepts to solve non-routine problems <u>Use & show reasoning, planning, and evidence</u> Translate between problem & symbolic notation when not a direct translation 	<ul style="list-style-type: none"> Select or devise approach among many alternatives to solve a problem Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results
Analyze Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct	<ul style="list-style-type: none"> Retrieve information from a table or graph to answer a question Identify whether specific information is contained in graphic representations (e.g., table, graph, T-chart, diagram) Identify a pattern/trend 	<ul style="list-style-type: none"> Categorize, classify materials, data, figures based on characteristics Organize or order data Compare/ contrast figures or data Select appropriate graph and organize & display data Interpret data from a simple graph Extend a pattern 	<ul style="list-style-type: none"> Compare information within or across data sets or texts Analyze and <u>draw conclusions from data, citing evidence</u> Generalize a pattern Interpret data from complex graph Analyze similarities/differences between procedures or solutions 	<ul style="list-style-type: none"> Analyze multiple sources of evidence analyze complex/abstract themes Gather, analyze, and evaluate information
Evaluate Make judgments based on criteria, check, detect inconsistencies or fallacies, judge, critique			<ul style="list-style-type: none"> <u>Cite evidence and develop a logical argument</u> for concepts or solutions Describe, compare, and contrast solution methods <u>Verify reasonableness of results</u> 	<ul style="list-style-type: none"> Gather, analyze, & evaluate information to draw conclusions Apply understanding in a novel way, provide argument or justification for the application
Create Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, construct, produce	<ul style="list-style-type: none"> Brainstorm ideas, concepts, or perspectives related to a topic 	<ul style="list-style-type: none"> Generate conjectures or hypotheses based on observations or prior knowledge and experience 	<ul style="list-style-type: none"> Synthesize information within one data set, source, or text Formulate an original problem given a situation Develop a scientific/mathematical model for a complex situation 	<ul style="list-style-type: none"> Synthesize information across multiple sources or texts Design a mathematical model to inform and solve a practical or abstract situation

Site-Based Implementation Plan to Assess and Monitor Student Learning 2013-2017

<i>Learning Target</i>	Critical Thinking				
<i>Goal</i>	100% of students will engage in DOK Level 3 tasks; 80% will demonstrate mastery.				
<i>Success Indicators</i>	0	1	2	3	4
	Student learning is rote in nature with little or no evaluation of thought processes	Students are presented with alternative processes or points of view, the pros and cons of each, and then are prompted to follow one.	Students occasionally use various types of reasoning (inductive, deductive, etc.) as appropriate to analyze situations or solve problems in both conventional and innovative ways.	Students frequently use various types of reasoning (inductive, deductive, etc.) as appropriate to analyze situations or solve problems in both conventional and innovative ways.	Student use of insightful reasoning is varied, widespread and exemplary. Students habitually analyze situations and/or solve problems in both conventional and innovative ways to extend analysis to new environments and scenarios.
<i>Action Steps</i>	Teachers develop units of study that reflect DOK level 3 learning targets				
<i>Support</i>	Administration provides time and resources for collaboration to develop, review and refine curriculum				

<i>Learning Target</i>	Collaboration				
<i>Goal</i>	100% of students will actively participate in pair and group dialogue				
<i>Success Indicators</i>	0	1	2	3	4
	Students work quietly on worksheets or other individual work	Students may collaborate with the teacher but have no opportunities to work with classmates to discuss lesson concepts	Collaboration is teacher-dominated. Opportunities for students to discuss lesson concepts with one another are highly structured.	Students have frequent opportunities for collaboration and/or discussion between themselves and their teach which encourage elaborated responses about lesson concepts	There is frequent collaboration between various students and/or groups both within and outside the classroom in which students engage in elaborated responses extending learning tasks and lesson concepts.
<i>Action Steps</i>	Teachers create structured student interactions as part of lesson delivery				
<i>Support</i>	During collaboration administration and coaches assist in defining and clarifying agreed upon strategies				

Site-Based Implementation Plan to Assess and Monitor Student Learning 2013-2017

<i>Learning Target</i>	Communication				
<i>Goal</i>	100% of students will engage in a variety of mediums to communicate to persuade, justify, and critique from evidence				
<i>Success Indicators</i>	0	1	2	3	4
	Very little provision is made for students to express their thoughts	Opportunities for students to express their thoughts are tightly controlled for teacher prescribed purposes. Communication is dominated by a single mode (e.g. writing).	Students communicate for a specific purpose (e.g. to inform, instruct, motivate or persuade). They express thoughts and ideas using oral, written <u>or</u> nonverbal communication skills including multimedia.	Students communicate for a specific purpose (e.g. to inform, instruct, motivate or persuade). They express thoughts and ideas using oral, written <u>and</u> nonverbal communication skills including multimedia.	Students communicate with and to a range of audiences, adroitly attending to the demands of speaker, subject and audience, utilizing a variety of mediums, as they become 21 st century, transliterate communicators.
<i>Action Steps</i>	Teachers will plan and assign products that require students to use a variety of communicative modes				
<i>Support</i>	Administration will assist teachers in defining/clarifying expectations for student work and provide necessary resources				

<i>Learning Target</i>	Creativity				
<i>Goal</i>	100% of students will work and think creatively to demonstrate originality, inventiveness and innovation in their learning				
<i>Success Indicators</i>	0	1	2	3	4
	No provision for alternative thinking is evident during instruction.	Students follow teacher models for idea creation and copy the examples or processes provided	Students use various idea creation techniques (such as brainstorming). However, they do not have opportunities to refine, analyze or evaluate their ideas.	Students use a wide range of idea creation techniques (such as brainstorming). They have frequent opportunities are given to refine, analyze and evaluate their ideas in order to improve and maximize creative efforts	Students conceptualize and create varied learning structures that stimulate and extend understanding and appreciation of the content.
<i>Action Steps</i>	Teachers will promote a classroom environment that values the use of multiple resources and perspectives				
<i>Support</i>	Administration will provide classrooms multiple resources to access diverse perspectives				

TEMPLATE: Site-Based Implementation Plan to Assess and Monitor Student Learning 2013-2017

<i>Instructional Focus</i>					
<i>Target</i>					
<i>Success Indicators</i>	0	1	2	3	4
<i>Action Steps</i>					
<i>Support</i>					

Notes: