



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

K	ELA	WORK OF THE GRADE
<p>With prompting and support, students engage daily with complex literature and informational texts:</p> <ul style="list-style-type: none"> •Key Ideas and Details: ask and answer questions; retell; characters, settings, and major events; connection between two individuals, events, ideas, pieces of information in text •Integration of Knowledge and Ideas: relationship between illustration and text, how reasons support author’s points 		
<p>Students engage daily in practices of word reading accuracy and reading fluency:</p> <ul style="list-style-type: none"> •Print Concepts: left to right, top to bottom, page by page; spoken words are represented by sequences of letters; words are separated by spaces; upper/lowercase letters •Phonological Awareness: rhyming words; count, say, segment, and blend syllables in spoken words; segment and blend onset-rimes; isolate phonemes; phoneme manipulation •Phonics and Word Recognition: one to one letter-sound correspondence, common sight words, long/short vowels with common spellings 		
<p>With prompting and support, students engage daily in higher-order reasoning:</p> <ul style="list-style-type: none"> •Ask and answer questions to get help, information, or for clarification •Compare and contrast basic differences between two texts on same topic •Explore word relationships and nuances in word meanings with support •Participate in shared research and writing projects 		
<p>Students engage daily in collaborative work:</p> <ul style="list-style-type: none"> •Comprehension and Collaboration: conversations using rules for discussions, multiple exchanges in dialogue •Presentation: sufficient description of familiar people, places, things, and events; addition of drawings to descriptions; speak audibly; clear expression of thoughts; appropriate vocabulary; use of words/phrases acquired through conversations, reading, and responding to texts 		
<p>Using a combination of drawing, dictating, and writing, students engage daily in writing (using standard English grammar and conventions):</p> <p>Opinion: topic or name of book and related opinion/preference</p> <ul style="list-style-type: none"> •Informative/Explanatory: topic and some relevant information •Narrative: narration of single event or experience, or several loosely linked events, 		

K	ELA	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> •Communicating the learning objectives for the lesson orally and visually in student-friendly terms •Creating culturally responsive lessons that engage and sustain student attention •Selecting developmentally appropriate complex texts •Discussing the role of the author in creating a text 	<ul style="list-style-type: none"> •Persisting when engaging with meaningful literacy tasks •Using newly learned language when speaking •Expressing opinions •Identifying the author of a book
Instruction	<ul style="list-style-type: none"> •Designing lessons that integrate standards and strands •Designing lessons that support successful cooperation in culturally sensitive ways •Grouping students based on data and adjusting grouping as needed 	<ul style="list-style-type: none"> •Working cooperatively on a shared activity •Responding to one another’s ideas •Recognizing types of texts (e.g., stories, poems, nonfiction) •Listening to comprehend complex texts
Assessment	<ul style="list-style-type: none"> •Using multiple formative approaches to assess student learning (e.g., conferences, responses during read-aloud) •Conducting frequent checks for student understanding and adjusting instruction accordingly •Using scaffolding as needed and providing multiple opportunities for students to practice new linguistic patterns, features, and vocabulary 	<ul style="list-style-type: none"> •Responding to teacher feedback to improve their work •Demonstrating learning in multiple ways (e.g., conferences, responses during read-aloud) •Engaging in meaningful dictating, drawing, and/or writing •Using exemplars to inform their work



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

K		MATH	WORK OF THE GRADE (Major Clusters)
<p>Know number names and the count sequence. Count to tell the number of objects. Compare numbers. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. Work with numbers 11–19 to gain foundations for place value.</p>			
<div style="border: 2px solid blue; padding: 5px; display: inline-block;"> FLUENCY STANDARD: Add and subtract within 5 </div>			
K		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Clearly communicating the learning objectives for the lesson orally and visually in student-friendly terms Creating culturally responsive lessons that engage and sustain student attention Modeling critical thinking strategies to help establish problem solving and processing expectations 	<ul style="list-style-type: none"> Using everyday and mathematical language to express their mathematical ideas Explaining their thinking when approaching a mathematical problem Contextualizing quantities and operations by using manipulatives, images or stories 	
Instruction	<ul style="list-style-type: none"> Providing opportunities and structures for students to communicate their mathematical ideas and thinking with each other Providing opportunities to look for generalizations among mathematical situations Highlighting commonalities, differences, and patterns in student's ideas 	<ul style="list-style-type: none"> Specifically choosing symbols and words to express their mathematical ideas to others Working cooperatively on a shared activity Discussing with other students how multiple representations of numbers, operations and shapes relate to each other 	
Assessment	<ul style="list-style-type: none"> Conducting frequent checks for student understanding and adjusting instruction accordingly Prompting students to explain their reasoning and listening to their responses to identify misconceptions and gauge understandings Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 	<ul style="list-style-type: none"> Responding to teacher feedback to improve their work Demonstrating learning in multiple ways (e.g., conferences, task completion) Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

1 ELA WORK OF THE GRADE

Students engage daily with complex literature and informational texts:

- Key Ideas and Details: ask and answer questions, retell stories, central message or lesson; description of characters, settings, and main events; main topic; connection between two individuals, events, ideas, and pieces of information
- Craft and Structure: words and phrases that suggest feelings and appeal to senses, unknown words and phrases, characteristics of common types of stories
- Integration of Knowledge and Ideas: illustrations and words to describe characters, setting, events or key ideas; reasons to support author’s ideas; basic similarities and differences between 2 texts on same topic

Students engage daily in practices that promote word reading accuracy and reading fluency:

- Print Concepts: features of print/sentence (first word, capitalization, ending punctuation)
- Phonological Awareness
- Phonics and Word Recognition: word analysis, including decoding of words with common consonant digraphs, final –e, common vowel team, one and two syllables, inflectional endings, and irregularly spelled words; knowledge that every syllable must have a vowel sound
- Fluency: accurate/fluent reading to support comprehension, rereading as necessary

Students engage daily in higher-order reasoning:

- Ask and answer questions to gather additional information/clarify what is not understood
- Demonstrate understanding of word relationships and nuances in word meanings with guidance and support
- Participate in shared research and writing projects

Students engage daily in collaborative work:

- Comprehension and Collaboration: conversations using rules for discussions, building on others’ talk, asking for clarification, describe key text/media details aloud, ask and answer questions to clarify what speaker says
- Presentation: clear description of people, places, things, and events using relevant details, choose and use appropriate vocabulary

Students engage daily in writing (using standard English grammar, conventions):

- Opinion: topic or name of book, related opinion and reasons, closure
- Informative/Explanatory: topic, related facts, closure
- Narrative: a recount of two or more sequenced events (what happened) using temporal words where appropriate, closure; use rhyming words in poems

1 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Clearly communicating the learning objectives for the lesson orally and visually in student-friendly terms •Creating culturally responsive lessons that engage and sustain student attention •Focusing attention on newly learned language 	<ul style="list-style-type: none"> •Engaging with (e.g., listening to the teacher read) developmentally appropriate complex texts •Providing a reason for their opinions •Identifying when an author chooses words that suggest a feeling
Instruction	<ul style="list-style-type: none"> •Designing lessons that integrate standards and strands •Helping students understand characteristics of different types of text •Grouping students based on data and adjusting grouping as needed 	<ul style="list-style-type: none"> •Working cooperatively on a shared activity •Responding to one another's ideas •Listening and reading to comprehend complex texts
Assessment	<ul style="list-style-type: none"> •Providing concrete strategies to respond to feedback •Using multiple formative approaches to assess student learning (e.g., conferences, responses during read-aloud) •Conducting frequent checks for student understanding and adjusting instruction accordingly 	<ul style="list-style-type: none"> •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful drawing and/or writing in response to text •Using exemplars to inform their work



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

1		MATH	WORK OF THE GRADE (Major Clusters)
<p>Represent and solve problems involving addition and subtraction. Understand and apply properties of operations and the relationship between addition and subtraction. Add and subtract within 20. Work with addition and subtraction equations. Extending the counting sequence. Understand place value. Use place value understanding and properties of operations to add and subtract. Measure lengths indirectly and by iterating length units.</p>			
<div style="border: 2px solid blue; padding: 5px;"> <p>FLUENCY STANDARD: Add and subtract within 10</p> </div>			
1		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Clearly communicating the learning objectives for the lesson orally and visually in student-friendly terms Focusing attention on newly learned mathematical language (e.g., linguistic complexity, conventions, and vocabulary) Representing and relating solution methods orally, visually, and with concrete objects 	<ul style="list-style-type: none"> Persisting when engaging with mathematical tasks Applying mathematical strategies and concepts when engaging with meaningful real-world problems Using everyday and mathematical language to express their mathematical ideas Explaining their thinking when approaching a mathematical problem 	
Instruction	<ul style="list-style-type: none"> Creating a culture of being careful and precise Providing students with opportunities to apply their learning and solve problems in collaboration with their peers Providing opportunities and structures for students to communicate their mathematical ideas and thinking with each other 	<ul style="list-style-type: none"> Working cooperatively on a shared activity Discussing with other students how multiple representations of numbers, operations and shapes relate to each other Noticing patterns in the number system and geometric contexts Explaining how multiple representations of numbers and/or operations relate to one another 	
Assessment	<ul style="list-style-type: none"> Providing actionable feedback to students about their problem-solving processes Using multiple formative approaches to assess students (e.g., conferences, task completion) Conducting frequent checks for student understanding and adjusting instruction accordingly 	<ul style="list-style-type: none"> Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) Using concrete objects or pictures to explore mathematical concepts and relationships Using exemplars to inform their work 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

2 ELA WORK OF THE GRADE

Students engage daily with complex literature and informational texts:

- Key Ideas and Details: ask and answer questions, retell stories, determine central message, lesson or moral, characters' response to major events, main topic of multi paragraph text, connection between historical events, scientific ideas, mathematical ideas or concepts or steps
- Craft and Structure: words and phrases supply rhythm and meaning, overall structure of story, how dialogue can reveal characters' thoughts and perspectives
- Integration of Knowledge and Ideas: illustrations and words in print or digital text, to demonstrate understanding, how specific images contribute to and clarify a text, how reasons support author's ideas

Students engage daily in practices that promote word reading accuracy and reading fluency:

- Phonics and Word Recognition: word analysis, including decoding words with long/short vowels, spelling-sound correspondences, two syllable words with long vowels, common suffixes/prefixes, irregularly spelled words, and words with inconsistent but common spelling-sound correspondences
- Fluency: accurate/fluent reading to support comprehension, rereading as necessary

Students engage daily in higher-order reasoning:

- Ask and answer questions to deepen understanding of a topic or issue
- Describe how characters respond to major events and challenges
- Compare and contrast 2+ versions of same story by different authors or from different cultures, or most important points presented by two texts on same topic
- Demonstrate understanding of word relationships and nuances in word meanings
- Participate in shared research and writing projects

Students engage daily in collaborative work:

- Comprehension and Collaboration: conversations using rules for discussions, building on others' talk, asking for clarification,
- Presentation: storytelling or recount with appropriate facts, speaking audibly in coherent sentences

Students engage daily in writing (using standard English grammar, conventions):

- Opinion: topic, related opinion and reasons using linking words, concluding statement or section
- Informative/Explanatory: topic, related facts and definitions to develop points, concluding statement or section
- Narrative: in prose or poem form that recount a well- elaborated event or experience or set of events

2 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Creating culturally responsive lessons that engage and sustain student attention •Selecting appropriate complex texts •Highlighting when an author uses words to suggest a feeling 	<ul style="list-style-type: none"> •Understanding what they will learn in a lesson •Using newly learned language when speaking •Providing a reason for their opinions
Instruction	<ul style="list-style-type: none"> •Designing lessons that support successful cooperation in culturally sensitive ways •Providing opportunities and structures for students to communicate their ideas and thinking with each other •Grouping students based on data and adjusting grouping as needed 	<ul style="list-style-type: none"> •Making connections between reading, writing, speaking and listening •Identifying types of texts (e.g., nonfiction, poems) by their characteristics •Reading and comprehending a variety of complex texts
Assessment	<ul style="list-style-type: none"> •Conducting frequent checks for student understanding and adjusting instruction accordingly •Using scaffolding as needed and providing multiple opportunities for students to practice new linguistic patterns, features, and vocabulary •Providing exemplars of work (e.g. mentor texts, student work) 	<ul style="list-style-type: none"> •Responding to teacher feedback to improve their work •Demonstrating learning in multiple ways (e.g., writing and oral responses during reading group) •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

2		MATH	WORK OF THE GRADE (Major Clusters)
<p>Represent and solve problems involving addition and subtraction. Add and subtract within 20. Understand place value. Use place value understanding and properties of operations to add and subtract. Measure and estimate lengths in standard units. Relate addition and subtraction to length.</p>			
<p>FLUENCY STANDARD: Add and subtract within 100 (know single-digit sums from memory)</p>			
2		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> •Communicating both the language and content objectives for students and why they are important •Focusing attention on mathematical language (e.g., linguistic complexity, conventions, and vocabulary) •Representing and relating solution methods orally, visually, and with concrete objects 	<ul style="list-style-type: none"> •Applying mathematical strategies and concepts when engaging with meaningful real-world problems •Using mathematical language precisely to convey meaning and understanding of concepts •Evaluating different representations of a problem and different solution pathways 	
Instruction	<ul style="list-style-type: none"> •Highlighting when students draw explicitly upon class content during discussions with peers •Encouraging students to interpret structures and formulate conjectures about mathematical situations •Highlighting commonalities, differences, and patterns in student's ideas. 	<ul style="list-style-type: none"> •Specifically choosing symbols and words to express their mathematical ideas to others •Showing persistence and focus in working together toward a shared goal •Drawing explicitly upon content they have learned in class in conversations with peers 	
Assessment	<ul style="list-style-type: none"> •Conducting frequent checks for student understanding and adjusting instruction accordingly •Prompting students to explain their reasoning and listening to their responses to identify misconceptions •Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 	<ul style="list-style-type: none"> •Purposefully incorporating feedback from teacher and peers into actions •Demonstrating learning in multiple ways (e.g., student discourse, completion of class work) •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

3 ELA WORK OF THE GRADE

Students engage daily with complex literature and informational texts:

- Key Ideas and Details: ask and answer questions referencing text explicitly;
- Craft and Structure: meaning of words and phrases, literal from figurative language; meaning of general academic and domain-specific words and phrases; identify common structural elements of fiction
- Integration of Knowledge and Ideas: use of specific aspects of illustrations to convey meaning in words in a story, logical connection between particular sentences and paragraphs

Students engage daily in practices that promote word reading accuracy and reading fluency:

- Phonics and Word Recognition: word analysis, including decoding of words with common prefixes and Latin suffixes, derivational suffixes, multi-syllable words, and irregularly spelled words

Students engage daily in higher-order reasoning:

- Examine character traits, motivations, and feelings; how actions of characters contribute to events; relationship between historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures—using temporal (time and sequence) and cause/effect language
- Compare and contrast themes, settings, and plots of stories written by same author about same or similar characters, most important points and key details presented in two texts on same topic
- Conduct short research projects that build knowledge about a topic; gather information from various sources and sorting evidence into provided categories

Students engage daily in collaborative work:

- Presentation: reporting on topic, text, or story with facts or relevant details; speaking clearly in complete sentences; appropriate vocabulary, recordings of story or poem readings; use of visuals to clarify ideas; use of complete sentences; command of standard English grammar and usage

Students engage daily in extended writing time (using standard English grammar, conventions) for a range of tasks, purposes, and audiences:

- Opinion: topic, related opinion and supporting reasons using linking words, and concluding statement
- Informative/Explanatory: topic with facts, definitions and details; illustrations when appropriate, linking words and phrases, and concluding statement or section
- Narrative: in prose or poem form to develop experiences or events using effective literary techniques

3 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Creating culturally responsive lessons that engage and sustain student attention •Selecting appropriate complex texts (e.g., texts with metaphorical language) •Focusing attention on academic language 	<ul style="list-style-type: none"> •Understanding what they will learn in a lesson and how it connects to prior learning •Using rich academic language when speaking and writing •Support their opinions with evidence •Identifying how an author uses figurative language purposefully
Instruction	<ul style="list-style-type: none"> •Helping students understand characteristics of different types of text •Grouping students based on data and adjusting grouping as needed 	<ul style="list-style-type: none"> •Making connections between reading, writing, speaking and listening •Drawing explicitly upon content they have learned in class in conversations with peers •Reading and comprehending a variety of complex texts
Assessment	<ul style="list-style-type: none"> •Using multiple formative approaches to assess student learning (e.g., writing and oral responses during reading group) •Using scaffolding as needed and providing multiple opportunities for students to practice new linguistic patterns, features, and vocabulary •Providing exemplars of work (e.g. mentor texts, student work) 	<ul style="list-style-type: none"> •Purposefully incorporating feedback from teacher and peers into actions •Demonstrating learning in multiple ways (e.g., writing and oral responses during reading group) •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

3		MATH	WORK OF THE GRADE (Major Clusters)
<p>Represent and solve problems involving multiplication and division. Understand properties of multiplication and the relationship between multiplication and division. Multiply and divide within 100. Solve problems involving the four operations and identify and explain patterns in arithmetic. Develop understanding of fractions as numbers. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</p>			
<p>FLUENCY STANDARD: Add and subtract within 1000 Multiply and divide within 100 (know single-digit products from memory)</p>			
3		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> •Communicating both the language and content objectives for students and why they are important •Focusing attention on mathematical language (e.g., linguistic complexity, conventions, and vocabulary) •Representing and relating solution methods orally, visually, and with concrete objects 	<ul style="list-style-type: none"> •Applying mathematical strategies and concepts when engaging with meaningful real-world problems •Using mathematical language precisely to convey meaning and understanding of concepts •Evaluating different representations of a problem and different solution pathways 	
Instruction	<ul style="list-style-type: none"> •Highlighting when students draw explicitly upon class content during discussions with peers •Encouraging students to interpret structures and formulate conjectures about mathematical situations •Highlighting commonalities, differences, and patterns in student's ideas 	<ul style="list-style-type: none"> •Specifically choosing symbols and words to express their mathematical ideas to others •Showing persistence and focus in working together toward a shared goal •Drawing explicitly upon content they have learned in class in conversations with peers 	
Assessment	<ul style="list-style-type: none"> •Conducting frequent checks for student understanding and adjusting instruction accordingly •Prompting students to explain their reasoning and listening to their responses to identify misconceptions •Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 	<ul style="list-style-type: none"> •Purposefully incorporating feedback from teacher and peers into actions •Demonstrating learning in multiple ways (e.g., student discourse, completion of class work) •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

4 ELA WORK OF THE GRADE

Students engage daily with complex literature and informational texts:

- Key Ideas and Details: use of details and examples to explain what text says explicitly and to make inferences, theme, summary, main idea and supporting details
- Craft and Structure: meaning of general academic and domain-specific words and phrases; major differences among poems, drama, and prose including structural elements of each; overall structure of events, ideas, concepts, or information; different points of view, and firsthand and secondhand accounts of event
- Integration of Knowledge and Ideas: connections between text and visual or oral presentation; similes and metaphors, interpretation and contribution of oral, visual, or quantitative information, author’s use of reasons and evidence to support specific points

Students engage daily in practices that promote word reading accuracy and reading fluency:

- Phonics and Word Recognition: word analysis, using decoding words of all letter-sound correspondences, syllabication patterns and morphology to read words in and out of context
- Fluency: accurate and fluent reading to support comprehension, using context or rereading as necessary

Students engage daily in higher-order reasoning:

- Examine in depth character, setting, events, procedures, ideas, or concepts using specific text-based information and details
- Compare and contrast treatment of similar themes, topics, and patterns of events; integrate information from two texts on same topic
- Demonstrate understanding of the effects of figurative language, word relationships, and nuances in word meanings
- Conduct short research projects that build knowledge about different aspects of a topic; use evidence to support analysis, reflection, and research

Students engage daily in collaborative work:

- Comprehension and Collaboration: rules for discussions, building on others’ ideas, expression of own ideas, requesting clarifications, paraphrase information from diverse media and formats, speaker’s reason and evidence to support points
- Presentation: organized presentation using appropriate facts and details, speaking clearly, appropriate vocabulary, use of audio and visuals to enhance topic development, correct use of formal and informal English, command of standard English grammar and usage

Students engage daily in extended writing time (using standard English grammar, conventions) for a range of tasks, purposes,

- Opinion: topic, related opinion and reasons using linking words, and conclusion
- Informative/Explanatory: topic, paragraphs or sections, appropriate headings, illustrations or multimedia, precise language/vocabulary, conclusion

4 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Selecting developmentally appropriate complex texts (e.g., texts with metaphorical language) •Focusing attention on academic language •Highlighting when an author uses figurative language purposefully 	<ul style="list-style-type: none"> •Understanding what they will learn in a lesson and how it connects to prior learning •Persisting when engaging with meaningful literacy tasks •Using rich academic language when speaking and writing •Support their opinions with evidence
Instruction	<ul style="list-style-type: none"> •Designing lessons that integrate standards and strands •Highlighting when students draw explicitly upon class content during discussions with peers 	<ul style="list-style-type: none"> •Showing persistence and focus in working together toward a shared goal •Recognizing types of structures that texts use •Reading a variety of complex texts to advance academic learning
Assessment	<ul style="list-style-type: none"> •Using multiple formative approaches to assess student learning (e.g., writing and oral responses during reading group) •Conducting frequent checks for student understanding and adjusting instruction accordingly 	<ul style="list-style-type: none"> •Purposefully incorporating feedback from teacher and peers into actions\ •Demonstrating learning in multiple ways •Engaging in meaningful writing in response to text •Using exemplars to inform their work



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

4		MATH	WORK OF THE GRADE (Major Clusters)
<p>Use the four operations with whole numbers to solve problems. Generalize place value understanding for multi-digit whole numbers. Use place value understanding and properties of operations to perform multi-digit arithmetic. Extend understanding of fraction equivalence and ordering. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. Understand decimal notation for fractions, and compare decimal fractions..</p>			
<p>FLUENCY STANDARD: Add and subtract within 1,000,000</p>			
4		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> •Focusing attention on mathematical language (e.g., linguistic complexity, conventions, and vocabulary) •establishing classroom routines that support students to communicate their thinking •Establishing classroom routines that support students to defend their thinking •Representing and relating solution methods orally, visually, and with concrete objects 		<ul style="list-style-type: none"> •Understanding what they will learn in a lesson and how it connects to prior learning •Persisting when engaging with mathematical tasks •Applying mathematical strategies and concepts when engaging with meaningful real-world problems •Using mathematical language precisely to convey meaning and understanding of concepts
Instruction	<ul style="list-style-type: none"> •Creating a culture of being careful and precise when communicating mathematical ideas •Providing students with opportunities to apply their learning and solve problems in collaboration with their peers •Highlighting when students draw explicitly upon class content during discussions with peers 		<ul style="list-style-type: none"> •Drawing explicitly upon content they have learned in class in conversations with peers •Interpreting structures and formulating conjectures about mathematical situations •Explaining how multiple representations of numbers and/or operations relate to one another
Assessment	<ul style="list-style-type: none"> •Providing actionable feedback to students about their problem-solving processes •Using multiple formative approaches to assess student learning (e.g., student discourse, completion of class work) •Conducting frequent checks for student understanding and adjusting instruction accordingly 		<ul style="list-style-type: none"> •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Using concrete objects, diagrams, and expressions to explore mathematical concepts and relationship •Using exemplars to inform their work
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

5 ELA WORK OF THE GRADE

Students engage daily with complex literature and informational texts:

- Key Ideas and Details: summary, accurate quotations or paraphrases illustrating explicit and implicit meanings, theme, how characters respond to challenges or speaker reflects upon topic, one or more main ideas with relevant details, relationships or interactions between 2+ individuals, ideas, or concepts using specific information in text
- Craft and Structure: meaning of grade-appropriate general academic and domain-specific words and phrases, similes and metaphors, relationship of text's parts (chapters, scenes, or stanzas) to overall structure
- Integration of Knowledge and Ideas: contribution of visual and multimedia elements to meaning, tone, or beauty

Students engage daily in practices that promote word reading accuracy and reading fluency:

- Phonics and Word Recognition: word analysis, using decoding words of all letter-sound correspondences, syllabication patterns and morphology to read words in and out of context

Students engage daily in higher-order reasoning:

- Analyze influence of narrator's point of view on descriptions of events, multiple accounts of same event or topic (similarities and differences in point of view)
- Compare and contrast 2+ characters, settings, or events, using specific details; stories in same genre on approaches to similar themes and topics; overall structure of events, ideas, concepts, or information in one or more texts
- Conduct short research projects that build knowledge about different aspects of a topic; use information from several sources and drawing evidence to support analysis, reflection, and research

Students engage daily in collaborative work:

- Presentation: logical sequencing of ideas using appropriate vocabulary, facts and details to support main ideas or themes, speaking clearly, use of multimedia to enhance topic development, appropriate use of formal versus informal English based on task and situation

Students engage daily in extended writing time (using standard English grammar, conventions) for a range of tasks, purposes,

- Opinion: topic, opinion, logically grouped and sequenced ideas supported by facts and details
- Informative/Explanatory: introduction; grouping of relevant information; use of precise language/vocabulary, headings, illustrations, and multimedia as appropriate; use of details, quotations, examples, and definitions to develop topic
- Narrative: situation; narrator and/or characters; use of dialogue, description, and pacing; clear sequence

5 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Communicating both the language and content objectives for students and why they are important •Creating culturally responsive lessons that engage and sustain student attention •Selecting appropriate complex texts (e.g., texts with metaphorical language) 	<ul style="list-style-type: none"> •Using rich academic language when speaking and writing •Support their opinions with evidence •Identifying how an author uses figurative language purposefully
Instruction	<ul style="list-style-type: none"> •Highlighting when students draw explicitly upon class content during discussions with peers •Helping students see the underlying structures of texts 	<ul style="list-style-type: none"> •Showing persistence and focus in working together toward a shared goal •Drawing explicitly upon content they have learned in class in conversations with peers
Assessment	<ul style="list-style-type: none"> •Providing concrete strategies to respond to feedback •Using multiple formative approaches to assess student learning •Conducting frequent checks for student understanding and adjusting instruction accordingly 	<ul style="list-style-type: none"> •Purposefully incorporating feedback from teacher and peers into actions •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text •Using exemplars to inform their work



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

5		MATH	WORK OF THE GRADE (Major Clusters)
<p>Understand the place value system. Perform operations with multi-digit whole numbers and with decimals to hundredths. Use equivalent fractions as a strategy to add and subtract fractions. Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</p>			
<p>FLUENCY STANDARD: Multi-digit multiplication</p>			
5		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> •Communicating both the language and content objectives for students and why they are important •Creating culturally responsive lessons that engage and sustain student attention •Establishing classroom routines that support students to communicate their thinking •Representing and relating solution methods orally, visually, and with concrete objects 	<ul style="list-style-type: none"> •Applying mathematical strategies and concepts when engaging with meaningful real-world problems •Using mathematical language precisely to convey meaning and understanding of concepts •Evaluating different representations of a problem and different solution pathways •Representing problems and solution methods using visual model 	
Instruction	<ul style="list-style-type: none"> •Creating a culture of being careful and precise when communicating mathematical ideas •Encouraging students to interpret structures and formulate conjectures about mathematical situations •Providing students with opportunities to evaluate different approaches to a problem 	<ul style="list-style-type: none"> •Showing persistence and focus in working together toward a shared goal •Drawing explicitly upon content they have learned in class in conversations with peers •Interpreting structures and formulating conjectures about mathematical situations 	
Assessment	<ul style="list-style-type: none"> •Providing actionable feedback to students about their problem-solving processes •Using multiple formative approaches to assess student learning (e.g., student discourse, completion of class work) •Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 	<ul style="list-style-type: none"> •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Using concrete objects, diagrams, and expressions to explore mathematical concepts and relationship •Using exemplars to inform their work 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

6 ELA WORK OF THE GRADE	
<p>Students engage independently with grade-level literary and informational texts, focusing on:</p> <ul style="list-style-type: none"> •Key Ideas and Details: textual evidence supporting analysis of what text explicitly states, draw inferences, theme or central idea and relationship to key details, summary distinct from personal opinion •Craft and Structure: how a particular sentence, chapter, scene, stanza, section, or text feature fits with text structure •Integration of Knowledge and Ideas: compare and contrast the experience of reading a story, drama or poem, to listening or viewing same text; comparing texts on similar themes or topics in different forms or genres, comparing different authors' presentations of same events <p>Students engage daily in higher-order reasoning, both orally and in writing, especially by:</p> <ul style="list-style-type: none"> •Synthesizing: integrate information presented in different media or formats as well as in words to develop a coherent understanding of topic or issue; refocusing inquiry when appropriate •Analyzing: recognizing purpose behind text or speech, tracing arguments and claims, assessing credibility of sources •Evaluating: assessing arguments with attention to whether claims are supported by reasons and evidence <p>Students attend closely to language use in their own work and others', focusing on:</p> <ul style="list-style-type: none"> •Meanings: strategies (e.g., consulting resources, analyzing roots) for understanding words and phrases in context, including figurative, connotative, and technical meanings; word choice •Conventions: punctuation (e.g., commas, dashes) to set off nonrestrictive/parenthetical elements <p>Students interact frequently, purposefully, and effectively with diverse others, engaging in:</p> <ul style="list-style-type: none"> •Discussion: being prepared, following rules, defining individual roles, monitoring progress toward goals, asking and answering questions, paraphrasing and reflecting on others' ideas •Presentation: coherent claims or findings, emphasis on salient points, eye contact, volume, pronunciation, use of appropriate vocabulary, integration of multimedia elements, consideration of specific audience, appropriate vocabulary •Collaboration: revising and editing work, using current Web-based communication platforms and other technology to produce and publish writing (e.g., linking to sources), paraphrasing without plagiarizing and providing basic bibliographic information <p>Students engage in writing within a range of time frames for a variety of audiences, producing:</p> <ul style="list-style-type: none"> •Arguments: support claims, clear and relevant evidence, credible sources, concluding statement or section •Explanations: relevant facts, definitions, concrete details, and quotations, appropriate transitions, text features, graphics •Narratives: establish narrator and/or characters, appropriate narrative sequence, figurative and sensory language •All writing: clear and appropriate beginning and end, logical and cohesive structure, varied and effective transitions, style appropriate to audience and purpose, three or more pages of typing in a single sitting 	
6 ELA TEACHER & STUDENT ACTIONS	
Expectations	<ul style="list-style-type: none"> •Communicating a lesson's objectives and their connections to unit essential questions and goals. •Creating culturally responsive lessons that engage and sustain student attention •Highlighting when an author uses figurative, connotative, or technical language purposefully
Instruction	<ul style="list-style-type: none"> •Engaging with appropriate complex texts •Using rich academic language when speaking and writing •Making an argument giving reasons (e.g., citing evidence from a text)
Assessment	<ul style="list-style-type: none"> •Highlighting when students draw explicitly upon class content during discussions with peers •Highlighting how a section of text relates to the whole •Grouping students based on data and adjusting grouping as needed
	<ul style="list-style-type: none"> •Making connections between reading, writing, speaking and listening •Analyzing how a specific section of a text relates to the whole
	<ul style="list-style-type: none"> •Using multiple formative approaches to assess student learning (e.g., exit slips, classroom discussion) •Conducting frequent checks for student understanding and adjusting instruction accordingly •Using scaffolding as needed and providing multiple opportunities for students
	<ul style="list-style-type: none"> •Reflecting on how they are progressing toward goals •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text •Using exemplars to inform their work



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

6		MATH	WORK OF THE GRADE (Major Clusters)
<p>Understand ratio concepts and use ratio reasoning to solve problems. Apply and extend previous understandings of multiplication and division to divide fractions by fractions. Apply and extend previous understandings of numbers to the system of rational numbers. Apply and extend previous understandings of arithmetic to algebraic expressions. Reason about and solve one-variable equations and inequalities. Represent and analyze quantitative relationships between dependent and independent variables.</p>			
<div style="border: 2px solid blue; padding: 10px;"> <p>FLUENCY STANDARD: Multi-digit division Multi-digit decimal operations</p> </div>			
6		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Communicating a lesson's objectives and their connections to unit essential questions and goals. Creating culturally responsive lessons that engage and sustain student attention Focusing attention on mathematical language (e.g., linguistic complexity, conventions, and vocabulary) Establishing classroom routines that support students to defend their thinking 	<ul style="list-style-type: none"> Applying mathematical strategies and concepts when engaging with meaningful real-world problems Using mathematical language precisely to convey meaning and understanding of concepts Justifying a solution method and critiquing the reasoning of others Identifying important quantities in a given relationship and representing situations. (e.g. using diagrams, or formulas) 	
Instruction	<ul style="list-style-type: none"> Creating a culture of being careful and precise when communicating mathematical ideas Sharing conflict resolution strategies for working together with students Highlighting when students draw explicitly upon quantitative reasoning during discussions with peers 	<ul style="list-style-type: none"> Using quantitative reasoning to communicate ideas to others Using equations and diagrams to represent patterns Evaluating the relative strengths and weaknesses of solution methods orally and in writing 	
Assessment	<ul style="list-style-type: none"> Providing actionable feedback to students about their problem-solving processes Using multiple formative approaches to assess students (e.g., mid-unit assessment, group work) Conducting frequent checks for student understanding and adjusting instruction accordingly 	<ul style="list-style-type: none"> Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) Using concrete objects, diagrams, and expressions to explore mathematical concepts and relationship Using exemplars to inform their work 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

7 ELA WORK OF THE GRADE

- Students engage independently with grade-level literary and informational texts, focusing on:**
- Key Ideas and Details: objective summary, quoting or paraphrasing of text where appropriate, multiple pieces of textual evidence for claims about explicit and implicit meanings
 - Craft and Structure: relationship of parts to the whole and of structure to meaning, different points of view, impact of specific word choices, literary elements—including mood, tone, and symbolism
 - Integration of Knowledge and Ideas: comparing written text to its audio, filmed, staged, or multimedia version, comparing fictional and historical accounts of events
- Students engage daily in higher-order reasoning, both orally and in writing, especially by:**
- Synthesizing: drawing on multiple sources of information in multiple formats to answer a research question and to generate focused questions for further research
 - Analyzing: understanding how different purposes lead authors or speakers to emphasize different information when addressing the same topic, assessing credibility of sources
 - Evaluating: assessing arguments with attention to soundness of reasoning and relevance and sufficiency of evidence
- Students attend closely to language use in their own work and others', focusing on:**
- Meanings: strategies for understanding words and phrases in context, including figurative, connotative, and technical meanings
- Students interact frequently, purposefully, and effectively with diverse others, engaging in:**
- Discussion: being prepared, following rules, defining individual roles, monitoring progress toward goals, asking and answering questions, acknowledging other viewpoints and defending or adjusting own stance in response
 - Presentation: coherent claims or findings, emphasis on salient points, eye contact, volume, pronunciation, use of appropriate vocabulary, integration of multimedia elements, consideration of specific audience
 - Collaboration: revising and editing work with help from peers and adults
- Students engage in writing within a range of time frames for a variety of audiences, producing:**
- Arguments: claims with acknowledgement of opposing claims, logical reasoning, relevant evidence, accurate and credible sources
 - Explanations: well-chosen details and quotations, domain-specific vocabulary, useful text features and multimedia elements
 - Narratives: clear point of view, sensory details, appropriate narrative sequence, literary techniques
 - All writing: clear and appropriate beginning and end, logical and cohesive structure, varied and effective transitions, precise and concise language, style appropriate to audience and purpose

7 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Selecting developmentally appropriate complex texts (e.g., texts from unfamiliar perspectives) •Asking students for evidence to support their claims •Highlighting when an author uses figurative, connotative, or technical language purposefully 	<ul style="list-style-type: none"> •Identifying a lesson's standards or objectives and how they connect to unit goals •Engaging with appropriate complex texts •Using rich academic language when speaking and writing
Instruction	<ul style="list-style-type: none"> •Designing lessons that integrate standards and strands •Highlighting when students draw explicitly upon class content during discussions with peers 	<ul style="list-style-type: none"> •Drawing explicitly upon content they have learned in class in conversations with peers •Analyzing how a specific section of a text relates to the whole •Reading a variety of complex texts to advance academic learning
Assessment	<ul style="list-style-type: none"> •Using scaffolding as needed and providing multiple opportunities for students to practice new linguistic patterns, features, and vocabulary •Providing exemplars of work (e.g. mentor texts, student work) 	<ul style="list-style-type: none"> •Reflecting on how they are progressing toward goals •Demonstrating learning in multiple ways (e.g., exit slips, classroom discussion) •Engaging in meaningful writing in response to text



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

7	MATH	WORK OF THE GRADE (Major Clusters)
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Analyze proportional relationships and use them to solve real-world and mathematical problems.
 Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
 Use properties of operations to generate equivalent expressions.
 Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

FLUENCY STANDARD: Rational number arithmetic
Solve multi-step problems with positive and negative rational numbers
Solve one variable equations in the form $px+q=r$ and $p(x+q)=r$ fluently

7	MATH	TEACHER & STUDENT ACTIONS
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7	MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Establishing classroom routines that support students to defend their thinking Asking students to respond to the thinking and arguments of others Representing and relating solution methods orally, visually, with concrete objects, or by using technology to create dynamic models 	<ul style="list-style-type: none"> Identifying a lesson's standards or objectives and how they connect to unit goals Persisting when engaging with mathematical tasks Applying mathematical strategies and concepts when engaging with meaningful real-world problems Using mathematical language precisely to convey meaning and understanding of concepts
Instruction	<ul style="list-style-type: none"> Highlighting when students draw explicitly upon quantitative reasoning during discussions with peers Encouraging students to interpret structures and formulate conjectures about mathematical situations Providing students with opportunities to evaluate different approaches to a problem 	<ul style="list-style-type: none"> Referencing mathematical elements using specific vocabulary and symbols when expressing their mathematical ideas to others Resolving conflicts with peers in order to work together effectively Using quantitative reasoning to communicate ideas to others
Assessment	<ul style="list-style-type: none"> Conducting frequent checks for student understanding and adjusting instruction accordingly Prompting students to explain their reasoning and listening to their responses to identify misconceptions Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 	<ul style="list-style-type: none"> Purposefully incorporating feedback from teacher and peers into actions Demonstrating learning in multiple ways (e.g., mid-unit assessment, group work) Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts)

Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

8 ELA WORK OF THE GRADE

- Students engage independently with grade-level literary and informational texts, focusing on:**
- Key Ideas and Details: objective summary, development of theme or central idea, pivotal lines or events, strong textual evidence for claims about explicit and implicit meanings, quoting or paraphrasing as appropriate
 - Craft and Structure: impact of different text and paragraph structures, effect of differences in point of view
 - Integration of Knowledge and Ideas: faithfulness of film or live production to text, benefits and drawbacks of various media for presenting specific information, relationship of new texts to old
- Students engage daily in higher-order reasoning, both orally and in writing, especially by:**
- Synthesizing: drawing on multiple sources of information in multiple formats to answer a self-generated research question and to generate focused questions for further research
 - Analyzing: understanding the purpose and motives (e.g., political, commercial) behind an author’s or speaker’s presentation of information, assessing credibility of sources, compare or contrast 2+ texts
 - Evaluating: assessing arguments with attention to soundness of reasoning and relevance and sufficiency of evidence, recognizing irrelevant information
- Students attend closely to language use in their own work and others’, focusing on:**
- Conventions: punctuation to indicate pauses or breaks (e.g., ellipsis, em dash), verb voice (active, passive) and mood (indicative, imperative, interrogative, conditional, subjunctive), pronoun antecedent agreement
- Students interact frequently, purposefully, and effectively with diverse others, engaging in:**
- Presentation: coherent claims or findings, emphasis on salient points, eye contact, volume, pronunciation, use of appropriate vocabulary, integration of multimedia elements, consideration of specific audience
 - Collaboration: revising and editing work with help from peers and adults, using Internet and other technology to publish and exchange ideas and information, paraphrasing without plagiarizing and providing citations in standard format
- Students engage in writing within a range of time frames for a variety of audiences, producing:**
- Arguments: claims distinguished from counterclaims, logical reasoning, relevant evidence, accurate and credible sources
 - Explanations: well-chosen details and quotations, domain-specific vocabulary, useful text features and multimedia elements
 - Narratives: effective literary techniques, clear point of view, sensory details, appropriate narrative sequence
 - All writing: clear and appropriate beginning and end, logical and cohesive structure, varied and effective transitions, precise language, style appropriate to audience and purpose

8 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Selecting appropriate complex texts •Focusing attention on academic language •Highlighting when an author uses figurative, connotative, or technical language purposefully 	<ul style="list-style-type: none"> •Identifying a lesson's standards or objectives and how they connect to unit goals •Persisting when engaging with meaningful literacy tasks •Making an argument giving reasons (e.g., citing evidence from a text)
Instruction	<ul style="list-style-type: none"> •Modeling actively incorporating others into discussions •Highlighting how a section of text relates to the whole •Grouping students based on data and adjusting grouping as needed (using both homogenous and heterogeneous grouping) 	<ul style="list-style-type: none"> •Making connections between reading, writing, speaking and listening •Resolving conflicts with peers in order to working together effectively •Reading a variety of complex texts to advance academic learning
Assessment	<ul style="list-style-type: none"> •Providing students with feedback aligned to long-term goals •Using multiple formative approaches to assess student learning (e.g., exit slips, classroom discussion) •Conducting frequent checks for student understanding and adjusting instruction accordingly 	<ul style="list-style-type: none"> •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text •Using exemplars to inform their work



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

8		MATH	WORK OF THE GRADE (Major Clusters)
<p>Work with radicals and integer exponents. Understand the connections between proportional relationships, lines, and linear equations. Analyze and solve linear equations and pairs of simultaneous linear equations. Define, evaluate, and compare functions. Use functions to model relationships between quantities. Understand congruence and similarity using physical models, transparencies, or geometry software. Understand and apply the Pythagorean Theorem.</p>			
<p>FLUENCY STANDARD: Solve one variable linear equations, including cases with infinitely many solutions or no solutions Solve problems involving volumes of cones, cylinders and spheres Multi-step problem solving</p>			
8		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Communicating a lesson's objectives and their connections to unit essential questions and goals. Creating culturally responsive lessons that engage and sustain student attention Focusing attention on mathematical language (e.g., linguistic complexity, conventions, and vocabulary) Establishing classroom routines that support students to defend their thinking 	<ul style="list-style-type: none"> Applying mathematical strategies and concepts when engaging with meaningful real-world problems Using mathematical language precisely to convey meaning and understanding of concepts Justifying a solution method and critiquing the reasoning of others Identifying important quantities in a given relationship and representing situations. (e.g. using diagrams, or formulas) 	
Instruction	<ul style="list-style-type: none"> Creating a culture of being careful and precise when communicating mathematical ideas Sharing conflict resolution strategies for working together with students Modeling actively incorporating others into discussions 	<ul style="list-style-type: none"> Actively incorporating others into discussions about mathematical ideas Using equations and diagrams to represent patterns Evaluating the relative strengths and weaknesses of solution methods orally and in writing 	
Assessment	<ul style="list-style-type: none"> Using multiple formative approaches to assess students (e.g., mid-unit assessment, group work) Conducting frequent checks for student understanding and adjusting instruction accordingly Prompting students to explain their reasoning and listening to their responses to identify misconceptions 	<ul style="list-style-type: none"> Purposefully incorporating feedback from teacher and peers into actions Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) Using exemplars to inform their work 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

9-10 ELA WORK OF THE GRADE

Students engage independently with grade-level literary and informational texts, focusing on:

- Key Ideas and Details: strong and thorough textual evidence to support explicit claims from text and inferences drawn
- Craft and Structure: complex structures (e.g., parallel plots), manipulation of time (e.g., pacing, flashbacks)
- Integration of Knowledge and Ideas: evaluate and summarize argument and specific claims in text; themes and related concepts in seminal documents of historical and literary significance.

Students engage daily in higher-order reasoning, both orally and in writing, especially by:

- Synthesizing: drawing on multiple authoritative print and digital sources of information to answer a question including a self-generated research question, standard citation
- Analyzing: use of rhetorical patterns by authors and speakers to advance their particular purposes and points of view, a variety of perspectives of cultural norms or intellectual ideas of a period or place around the world
- Evaluating: assessing arguments with attention to specific claims and credibility of sources and relevance and sufficiency of evidence, recognizing false statements and incomplete truths

Students attend closely to language use in their own work and others', focusing on:

- Meanings: strategies for understanding words and phrases in context, including figurative, connotative, and technical
- Conventions: parallel structure, variety of phrases and clauses, semicolons and colons, adherence to style guides

Students interact frequently, purposefully, and effectively with diverse others, engaging in:

- Discussion: being prepared, agreeing on rules and roles, actively propelling and developing conversation, summarizing points of agreement and disagreement, acknowledging other views and defending or adjusting own stance in response
- Presentation: clear and concise organization and delivery, substance and style appropriate to audience and task, strategic integration of digital media, technology to present and link information in dynamic ways
- Collaboration: use technology , including current Web-based communication platforms ,to produce and publish writing , integrating information and ideas from others into own work while maintaining flow of ideas, paraphrasing while avoiding plagiarism and providing citations in standard format

Students engage in writing within a range of time frames for a variety of audiences, producing:

- Arguments: precise claims distinguished fairly from counterclaims, valid reasoning, relevant and sufficient evidence, accurate and credible sources
- Explanations: well-chosen and sufficient details, figurative and sensory language, domain-specific vocabulary and extended definitions, useful formatting and multimedia elements
- Narratives: develop experiences or events using effective literary techniques, well-chosen details, well-structured sequences
- All writing: clear and effective beginning and end, logical and cohesive structure, varied and effective transitions, precise language, style appropriate to audience and purpose

9-10 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Selecting appropriate complex texts (e.g., texts with varied structures) •Asking students to use strong evidence to support an argument and refute a counterargument •Highlighting the choices an author makes and how they impact meaning and tone 	<ul style="list-style-type: none"> •Identifying a lesson's standards or objectives and how they connect to unit goals •Persisting when engaging with meaningful literacy tasks •Using rich academic language when speaking and writing
Instruction	<ul style="list-style-type: none"> •Highlighting culturally appropriate and effective negotiation skills they observe in students •Highlighting the impact of a text's structure •Grouping students based on data and adjusting grouping as needed 	<ul style="list-style-type: none"> •Making connections between reading, writing, speaking and listening •Actively incorporating others into discussions of content •Analyzing the impact of a text's structure (e.g., flashbacks that create mystery)
Assessment	<ul style="list-style-type: none"> •Using multiple formative approaches to assess student learning (e.g., exit slips, classroom discussion) •Conducting frequent checks for student understanding and adjusting instruction accordingly •Providing exemplars of work (e.g. mentor texts, student work) 	<ul style="list-style-type: none"> •Reflecting on how they are progressing toward goals •Demonstrating learning in multiple ways •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text

Based on resources from: Achieve the Core, Common Core State Standards Initiative and Massachusetts Department of Education



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

11-12 ELA WORK OF THE GRADE

Students engage independently with grade-level literary and informational texts, focusing on:

- Key ideas and details: strong and thorough textual evidence to support explicit claims from text and inferences drawn; 2+ themes or central ideas; objective summary
- Craft and structure: impact of author’s choices in language (e.g. specific words, rhetorical patterns) and structure of specific parts of text on meaning and aesthetic or persuasive effect
- Integration of knowledge and ideas: multiple foundational U.S. texts from same period addressing similar theme or topic

Students engage daily in higher-order reasoning, both orally and in writing, especially by:

- Synthesizing: drawing on multiple authoritative sources of information in multiple formats to solve a problem or answer a self-generated research question, noting discrepancies and inaccuracies in data and avoiding overreliance on any one source
- Analyzing: when what is stated differs from what is really meant (e.g., in satire, sarcasm, irony, understatement, notable omission), literary significance of foundational works of American Literature and historical texts (e.g., The Federalist)—including rhetorical features and characteristics of legal reasoning
- Evaluating: assessing arguments skillfully—including attention to their underlying premises; clear, coherent, convincing, and engaging

Students attend closely to language use in their own work and others’, focusing on:

- Meanings: strategies (e.g., consulting resources, analyzing roots) for understanding words and phrases in context—including figurative, connotative and technical meanings, figures of speech (e.g., hyperbole, paradox), grade appropriate general academic and domain specific words and phrases

Students interact frequently, purposefully, and effectively with diverse others, engaging in:

- Discussion: being prepared, making decisions democratically, choosing roles and goals, clarifying and challenging ideas, maintaining civil discourse, encouraging and synthesizing diverse perspectives.
- Presentation: clear perspective with acknowledgement of other views, substance and style appropriate to audience and task.
- Collaboration: using Internet and other technology to create and respond to feedback on individual and shared work

Students engage in writing within a range of time frames for a variety of audiences, producing:

- Arguments: precise, knowledgeable claims distinguished fairly from counterclaims, valid and nuanced reasoning, articulation of argument’s significance, relevant evidence
- Explanations: significant and relevant facts, concrete details, complex ideas, domain-specific vocabulary, techniques such as simile and analogy, useful formatting and multimedia elements
- Narratives: figurative and sensory language, narrative techniques
- All writing: clear and effective beginning and end, logical and cohesive structure, varied and effective transitions, varied and precise language, anticipation of audience’s perspective, style appropriate to audience and purpose

11-12 ELA TEACHER & STUDENT ACTIONS

Expectations	<ul style="list-style-type: none"> •Selecting appropriate complex texts (e.g., texts with varied structures) •Asking students to use strong evidence to support an argument and refute a counterargument 	<ul style="list-style-type: none"> •Identifying a lesson's standards or objectives and how they connect to unit goals •Using rich academic language when speaking and writing
Instruction	<ul style="list-style-type: none"> •Highlighting culturally appropriate and effective negotiation skills they observe in students •Highlighting the impact of a text's structure (e.g., cliffhangers that create suspense) 	<ul style="list-style-type: none"> •Actively incorporating others into discussions of content •Analyzing the impact of a text's structure (e.g., flashbacks that create mystery)
Assessment	<ul style="list-style-type: none"> •Using multiple formative approaches to assess student learning (e.g., exit slips, classroom discussion) •Conducting frequent checks for student understanding and adjusting instruction accordingly •Providing exemplars of work (e.g. mentor texts, student work) 	<ul style="list-style-type: none"> •Reflecting on how they are progressing toward goals •Demonstrating learning in multiple ways (e.g., exit slips, classroom discussion) •Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) •Engaging in meaningful writing in response to text



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

ALG1		MATH	WORK OF THE GRADE (Major Clusters)
<p>Seeing structure in equations (Primary Goal)</p> <p>Developing fluency writing, interpreting and translating among various forms of linear equations and inequalities and using them to solve problems</p> <p>Interpreting, translating, and analyzing different representations of linear, quadratic, and exponential functions</p> <p>Becoming facile with algebraic manipulation and using linear, quadratic, and exponential functions to model phenomena</p> <p>Interpreting quantitative and categorical data and models</p>			
ALG1		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Establishing classroom routines that support students to defend their thinking Asking students to respond to the thinking and arguments of others Representing and relating solution methods orally, visually, with concrete objects, or by using technology to create dynamic models 		<ul style="list-style-type: none"> Identifying a lesson's standards or objectives and how they connect to unit goals Persisting when engaging with mathematical tasks Applying mathematical strategies and concepts when engaging with meaningful real-world problems Using mathematical language precisely to convey meaning and understanding of concepts
Instruction	<ul style="list-style-type: none"> Highlighting when students draw explicitly upon quantitative reasoning during discussions with peers Encouraging students to interpret structures and formulate conjectures about mathematical situations Providing students with opportunities to evaluate different approaches to a problem 		<ul style="list-style-type: none"> Referencing mathematical elements using specific vocabulary and symbols when expressing their mathematical ideas to others Resolving conflicts with peers in order to work together effectively Using quantitative reasoning to communicate ideas to others
Assessment	<ul style="list-style-type: none"> Conducting frequent checks for student understanding and adjusting instruction accordingly Prompting students to explain their reasoning and listening to their responses to identify misconceptions Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 		<ul style="list-style-type: none"> Purposefully incorporating feedback from teacher and peers into actions Demonstrating learning in multiple ways (e.g., mid-unit assessment, group work) Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts)
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

GEOM		MATH	WORK OF THE GRADE (Major Clusters)	
<p>Developing a foundation for the development of formal proof and using it to prove theorems using a variety of formats. Applying dilations and proportional reasoning to build a formal understanding of similarity. Developing explanations of circumference, area, and volume formulas Applying the Pythagorean Theorem and continuing their study of quadratics with parabolas Rigid motions is used to define the course, especially in the areas of congruence and similarity</p>				
GEOM		MATH	TEACHER & STUDENT ACTIONS	
Expectations	<ul style="list-style-type: none"> •Communicating a lesson's objectives and their connections to unit essential questions and goals. •Creating culturally responsive lessons that engage and sustain student attention •Focusing attention on mathematical language (e.g., linguistic complexity, conventions, and vocabulary) •Establishing classroom routines that support students to defend their thinking 		<ul style="list-style-type: none"> •Applying mathematical strategies and concepts when engaging with meaningful real-world problems •Using mathematical language precisely to convey meaning and understanding of concepts •Justifying a solution method using a logical progression of arguments and critiquing the reasoning of others •Using sophisticated mathematical models (e.g. computer models) 	
	Instruction	<ul style="list-style-type: none"> •Creating a culture of being careful and precise when communicating mathematical ideas •Highlighting culturally appropriate and effective negotiation skills they observe in students •Modeling incorporating others into discussions 		<ul style="list-style-type: none"> •Actively incorporating others into discussions about mathematical ideas •Negotiating with others in response to new ideas, preferences or contributions •Evaluating the relative strengths and weaknesses of solution methods orally and in writing
		Assessment	<ul style="list-style-type: none"> •Providing actionable feedback to students about their problem-solving processes •Using multiple formative approaches to assess students (e.g., mid-unit assessment, group work) •Conducting frequent checks for student understanding and adjusting instruction accordingly 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>				



INDICATORS OF RIGOR IN A CCSS ALIGNED CLASSROOM

ALG2		MATH	WORK OF THE GRADE (Major Clusters)
<p>Seeing structure in expressions and trying various manipulations mentally to see dynamic views of the course. Expanding understandings of functions and graphing to include modeling trigonometric functions Synthesizing and generalizing functions and extending understanding/problem solving of exponential functions to logarithmic functions Relating data display and summary statistics to probability and exploring a variety of data collection methods and designs</p>			
ALG2		MATH	TEACHER & STUDENT ACTIONS
Expectations	<ul style="list-style-type: none"> Communicating a lesson's objectives and their connections to unit essential questions and goals. Creating culturally responsive lessons that engage and sustain student attention Establishing classroom routines that require students to defend their thinking using a logical progression Demonstrating the development of sophisticated mathematical models (e.g., flow charts, formulas) 	<ul style="list-style-type: none"> Applying mathematical strategies and concepts when engaging with meaningful real-world problems Using mathematical language precisely to convey meaning and understanding of concepts Justifying a solution method using a logical progression of arguments and critiquing the reasoning of others Using sophisticated mathematical models (e.g. computer models) 	
	<ul style="list-style-type: none"> Modeling incorporating others into discussions Encouraging students to interpret structures and formulate conjectures about mathematical situations Provide students with opportunities to evaluate different approaches to a problem from different perspectives and/or for efficiency 	<ul style="list-style-type: none"> Referencing mathematical elements in context while logically providing claims and counter-claims Negotiating with others in response to new ideas, preferences, or contributions Actively incorporating others into discussions about mathematical ideas 	
	<ul style="list-style-type: none"> Conducting frequent checks for student understanding and adjusting instruction accordingly Prompting students to explain their reasoning and listening to their responses to identify misconceptions Providing exemplars that convey mathematical reasoning and understanding (both teacher and student generated) 	<ul style="list-style-type: none"> Purposefully incorporating feedback from teacher and peers into actions Demonstrating learning in multiple ways (e.g., mid-unit assessment, group work) Engaging in challenging learning tasks regardless of learning needs (e.g., linguistic background, disability, academic gifts) 	
<p><i>Recipe for rigor: equal parts procedural fluency, conceptual understanding and application.</i></p>			



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