

ELA/Literacy & Math Shifts

6 *Shifts* in ELA/Literacy

Balancing Informational and Literary Text
Building Knowledge in the Disciplines
Staircase of Complexity
Text-based Answers
Writing from Sources
Academic Vocabulary

6 *Shifts* in Mathematics

Focus
Coherence
Fluency
Deep Understanding
Applications
Dual Intensity

ELA/Literacy Shift 1: Balancing Informational and Literary Text

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Build background knowledge to increase reading skill•Exposure to the world through reading•Apply strategies to reading informational text.	<ul style="list-style-type: none">•Provide students equal #s of informational and literary texts•Ensure coherent instruction about content•Teach strategies for informational texts•Teach “through” and “with” informational texts•Scaffold for the difficulties that informational text present to students•Ask students, “What is connected here? How does this fit together? What details tell you that? “	<ul style="list-style-type: none">•Purchase and provide equal amounts of informational and literacy text to students•Hold teachers accountable for building student content knowledge through text•Provide PD and co-planning opportunities for teachers to become more intimate with non fiction texts and the way they spiral together

ELA/Literacy Shift 2: 6-12 Knowledge in the Disciplines

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">• Become better readers by building background knowledge• Handle primary source documents with confidence• Infer, like a detective, where the evidence is in a text to support an argument or opinion• See the text itself as a source of evidence (what did it say vs. what did it not say?)	<ul style="list-style-type: none">• Shift identity: “I teach reading.”• Stop referring and summarizing and start reading• Slow down the history and science classroom• Teach different approaches for different types of texts• Treat the text itself as a source of evidence• Teach students to write about evidence from the text• Teach students to support their opinion with evidence.• Ask : “How do you know? Why do you think that? Show me in the text where you see evidence for your opinion. “	<ul style="list-style-type: none">• Support and demand the role of all teachers in advancing students’ literacy• Provide guidance and support to ensure the shift to informational texts for 6-12• Give teachers permission to slow down and deeply study texts with students

ELA/Literacy Shift 3: Staircase of Complexity

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Read to see what more they can find and learn as they re-read texts again and again•Read material at own level to build joy of reading and pleasure in the world•Be persistent despite challenges when reading; good readers tolerate frustration	<ul style="list-style-type: none">•Ensure students are engaged in more complex texts at every grade level•Engage students in rigorous conversation•Provide experience with complex texts•Give students less to read, let them re-read•Use leveled texts carefully to build independence in struggling readers•More time on more complex texts•Provide scaffolding• Engage with texts w/ other adults•Get kids inspired and excited about the beauty of language	<ul style="list-style-type: none">•Ensure that complexity of text builds from grade to grade.•Look at current scope and sequence to determine where/how to incorporate greater text complexity•Allow and encourage teachers to build a unit in a way that has students scaffold to more complex texts over time•Allow and encourage teachers the opportunity to share texts with students that may be at frustration level

ELA/Literacy Shift 4: Text Based Answers

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Go back to text to find evidence to support their argument in a thoughtful, careful, precise way•Develop a fascination with reading•Create own judgments and become scholars, rather than witnesses of the text•Conducting reading as a close reading of the text and engaging with the author and what the author is trying to say	<ul style="list-style-type: none">•Facilitate evidence based conversations with students, dependent on the text•Have discipline about asking students where in the text to find evidence, where they saw certain details, where the author communicated something, why the author may believe something; show all this in the words from the text.•Plan and conduct rich conversations about the stuff that the writer is writing about.•Keep students in the text•Identify questions that are text-dependent, worth asking/exploring, deliver richly,•Provide students the opportunity to read the text, encounter references to another text, another event and to dig in more deeply into the text to try and figure out what is going on.•Spend much more time preparing for instruction by reading deeply.	<ul style="list-style-type: none">•Allow teachers the time to spend more time with students writing about the texts they read- and to revisit the texts to find more evidence to write stronger arguments.•Provide planning time for teachers to engage with the text to prepare and identify appropriate text-dependent questions.•Create working groups to establish common understanding for what to expect from student writing at different grade levels for text based answers.•Structure student work protocols for teachers to compare student work products; particularly in the area of providing evidence to support arguments/conclusions.

ELA/Literacy Shift 5: Writing from Sources

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Begin to generate own informational texts	<ul style="list-style-type: none">•Expect that students will generate their own informational texts (spending much less time on personal narratives)•Present opportunities to write from multiple sources about a single topic.•Give opportunities to analyze, synthesize ideas across many texts to draw an opinion or conclusion.•Find ways to push towards a style of writing where the voice comes from drawing on powerful, meaningful evidence.•Give permission to students to start to have their own reaction and draw their own connections.	<ul style="list-style-type: none">•Build teacher capacity and hold teachers accountable to move students towards informational writing

ELA/Literacy Shift 6: Academic Vocabulary

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Spend more time learning words across “webs” and associating words with others instead of learning individual, isolated vocabulary words.	<ul style="list-style-type: none">•Develop students’ ability to use and access words that show up in everyday text and that may be slightly out of reach•Be strategic about the kind of vocabulary you’re developing and figure out which words fall into which categories- tier 2 vs. tier 3•Determine the words that students are going to read most frequently and spend time mostly on those words•Teach fewer words but teach the webs of words around it•Shift attention on how to plan vocabulary meaningfully using tiers and transferability strategies	<ul style="list-style-type: none">•Provide training to teachers on the shift for teaching vocabulary in a more meaningful, effective manner.

Mathematics Shift 1: Focus

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Spend more time thinking and working on fewer concepts.•Being able to understand concepts as well as processes (algorithms).	<ul style="list-style-type: none">•Make conscious decisions about what to excise from the curriculum and what to focus•Pay more attention to high leverage content and invest the appropriate time for all students to learn before moving onto the next topic.•Think about how the concepts connects to one another•Build knowledge, fluency and understanding of why and how we do certain math concepts.	<ul style="list-style-type: none">•Work with groups of math teachers to determine what content to prioritize most deeply and what content can be removed (or decrease attention).•Determine the areas of intensive focus (fluency), determine where to re-think and link (apply to core understandings), sampling (expose students, but not at the same depth).•Determine not only the what, but at what intensity.•Give teachers enough time, with a focused body of material, to build their own depth of knowledge.

Priorities in Math

Grade	Priorities in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding
K–2	Addition and subtraction, measurement using whole number quantities
3–5	Multiplication and division of whole numbers and fractions
6	Ratios and proportional reasoning; early expressions and equations
7	Ratios and proportional reasoning; arithmetic of rational numbers
8	Linear algebra

Mathematics Shift 2: Coherence

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">• Build on knowledge from year to year, in a coherent learning progression	<ul style="list-style-type: none">• Connect the threads of math focus areas across grade levels• Think deeply about what you're focusing on and the ways in which those focus areas connect to the way it was taught the year before and the years after	<ul style="list-style-type: none">• Ensure that teachers of the same content across grade levels allow for discussion and planning to ensure for coherence/threads of main ideas

Mathematics Shift 3: Fluency

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Spend time practicing, with intensity, skills (in high volume)	<ul style="list-style-type: none">•Push students to know basic skills at a greater level of fluency•Focus on the listed fluencies by grade level•Create high quality worksheets, problem sets, in high volume	<ul style="list-style-type: none">•Take on fluencies as a stand alone CC aligned activity and build school culture around them.

Key Fluencies

Grade	Required Fluency
K	Add/subtract within 5
1	Add/subtract within 10
2	Add/subtract within 20 Add/subtract within 100 (pencil and paper)
3	Multiply/divide within 100 Add/subtract within 1000
4	Add/subtract within 1,000,000
5	Multi-digit multiplication
6	Multi-digit division Multi-digit decimal operations
7	Solve $px + q = r$, $p(x + q) = r$
8	Solve simple 2×2 systems by inspection

Mathematics Shift 4: Deep Understanding

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">• Show, through numerous ways, mastery of material at a deep level• Use mathematical practices to demonstrate understanding of different material and concepts	<ul style="list-style-type: none">• Ask yourself what mastery/proficiency really looks like and means• Plan for progressions of levels of understanding• Spend the time to gain the depth of the understanding• Become flexible and comfortable in own depth of content knowledge	<ul style="list-style-type: none">• Allow teachers to spend time developing their own content knowledge• Provide meaningful professional development on what student mastery and proficiency really should look like at every grade level by analyzing exemplar student work

Mathematics Shift 5: Application

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">• Apply math in other content areas and situations, as relevant• Choose the right math concept to solve a problem when not necessarily prompted to do so	<ul style="list-style-type: none">• Apply math including areas where its not directly required (i.e. in science)• Provide students with real world experiences and opportunities to apply what they have learned	<ul style="list-style-type: none">• Support science teachers about their role of math and literacy in the science classroom• Create a culture of math application across the school

Mathematics Shift 6: Dual Intensity

What the Student Does...	What the Teacher Does...	What the Principal Does...
<ul style="list-style-type: none">•Practice math skills with an intensity that results in fluency•Practice math concepts with an intensity that forces application in novel situations	<ul style="list-style-type: none">•Find the dual intensity between understanding and practice within different periods or different units•Be ambitious in demands for fluency and practice, as well as the range of application	<ul style="list-style-type: none">•Provide enough math class time for teachers to focus and spend time on both fluency and application of concepts/ideas