K – 5 ELA/Math
Common Core State Standards

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Goals of the Presentation

- To increase (or start) your application of the common core in your classroom, building and district using your current curriculum.
- To provide you with the foundations of CC expertise on literacy & Math instruction across the curriculum so it can be applied to your classroom lesson planning and shared with colleagues.
- To increase your confidence, so you implement change starting on the first day of school

Criteria for the New Standards

- Fewer, clearer, and higher (Consistent, rigorous, and shared aligned with college and work expectations)
- Aligned with college and career expectations
- Include rigorous content and application of knowledge through high-order skills – Habits of the Mind
- Build upon strengths and lessons of current state standards (think DNA of education)
- Internationally benchmarked, so that all students are prepared to succeed in our global economy and society
- Based on evidence and research

Pre-K – Grade 5 Balancing Literature and Informational Text

- Students read a true balance of informational and literary texts. Elementary school classrooms are, therefore, places where students access the world – science, social studies, the arts and literature – through text. **At least 50% of what students read is informational at the end of 5th grade.**

Text Based Answers

- Students have rich and rigorous conversations which are dependent on a common text. **Teachers insist that classroom experiences stay deeply connected to the text** on the page and that students develop habits for making **evidentiary arguments** both in conversation, as well as in writing to assess comprehension of a text.

CCSS "Habits of the Mind" Literacy Capacities

The introduction of the CCSS include descriptions of knowledge, skills and dispositions that operate in tandem with the academic content in the standards. These cognitive and psychological aptitudes are described in the literacy standards as "capacities" and in the math standards as "practices".

As students advance through the grades and master the standards in reading, writing, listening, speaking, viewing and language, they should be able to exhibit with increasing fullness and regularity the following listed capacities of the literate individual;

CCSSO to Advance Student Success, 2011

Literacy and Language Habits of the Mind

- They demonstrate independence.
- They build strong content knowledge.
- They respond to the varying demands of audience, task, purpose, and discipline.
- They comprehend as well as critique.
- They value evidence.
- They use technology and digital media strategically and capably.
- They come to understand other perspectives and cultures.

Staircase of Complexity

- Focus and coherence – backwards design, grade 12
  - Coherent progressions develop literacy skills across grade levels (pg 30,33)
- Focus on text complexity (pg 30, 32, 33)
- Each grade level requires a "step" of growth on the "staircase". Students read the central, grade appropriate text around which instruction is centered.
- Teachers are patient, create more time and space in the curriculum for close and careful reading, providing appropriate and necessary scaffolding and supports so that it is possible for students reading below grade level to gain.

Writing – Right from the Start

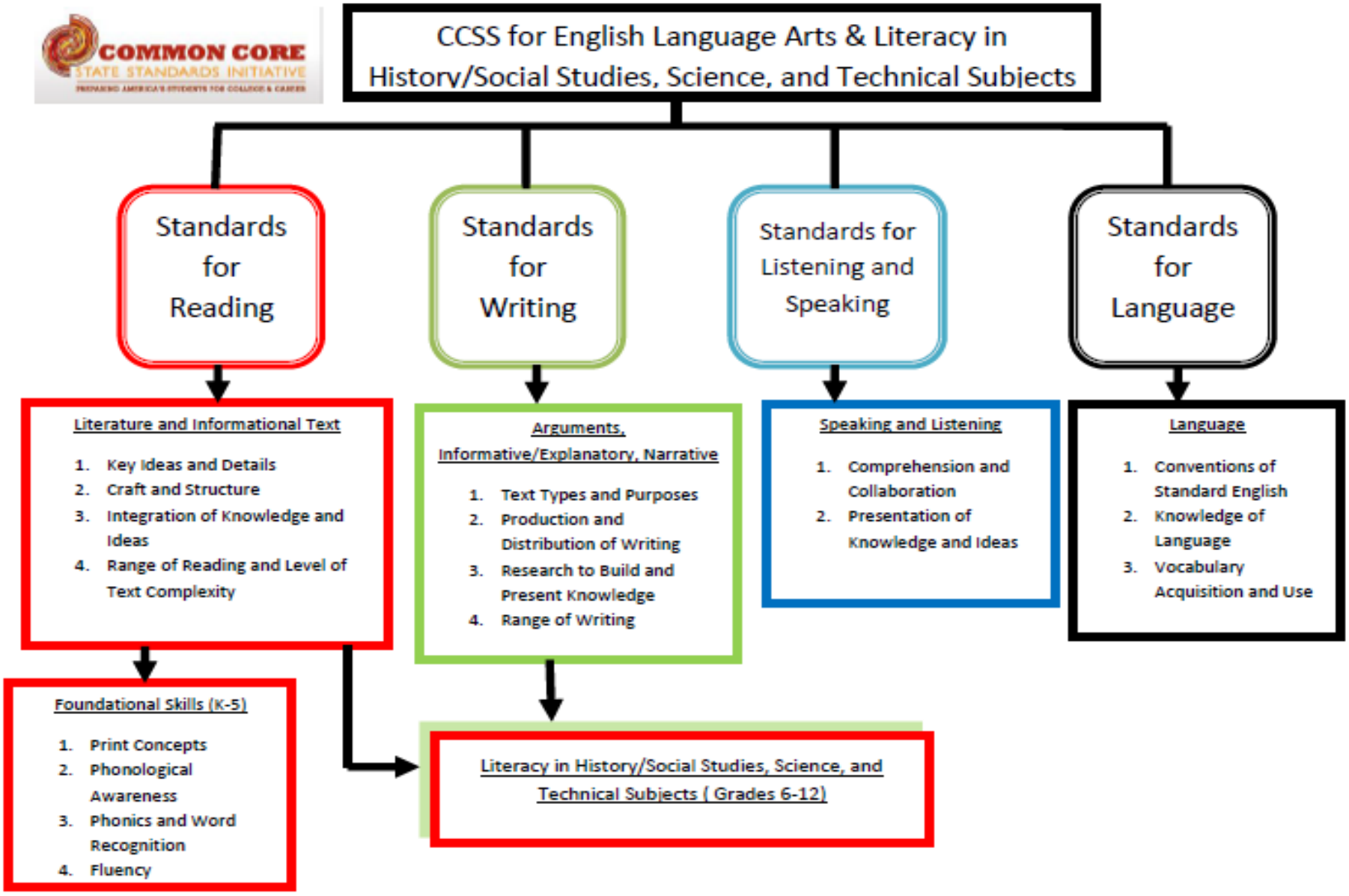
- Writing needs to **emphasize use of evidence to inform** or make an argument rather than the personal narrative and other forms of de-contextualized prompts.
- The narrative still has an important role, the use of the narrative decreases as the grade level increases.
- Students develop skills through written arguments that respond to the ideas, events, facts, and perspective presented in the texts they read.

Major Shifts in Literacy Capabilities

- **Academic Vocabulary** – focusing strategically on common terms and less on literacy terms
- **Text Complexity –** Appendix A
- **Writing –** Evidence based, supported by text, Projects
- **K-3 -** Cover less content topics – emphasis is on foundations; depth of knowledge is in skill development
- **Grades 3, 4, 5 –** Topics of Study Content Rich in Social Studies, Science, Health, Art, - skills applied and increased
- **Evidence … Evidence … Evidence!**

In the Document…not on APP

- Appendixes not included:
  - Appendix A = Research, Glossary & TC
  - Appendix B = Exemplars of Reading TC by
    - Complexity, Quality, Range
    - Grade Level – K-12 multiple contents
    - Use and Application – Stories, Poetry, Read Aloud, Informational
  - Appendix C = Samples of Student Writing


COMMON CORE
STATE STANDARDS INITIATIVE
CCSS for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects
Standards for Reading
Standards for Writing
Standards for Listening and Speaking
Standards for Language
Literature and Informational Text
1. Key Ideas and Details
2. Craft and Structure
3. Integration of Knowledge and Ideas
4. Range of Reading and Level of Text Complexity
Arguments, Informative/Explanatory, Narrative
1. Text Types and Purposes
2. Production and Distribution of Writing
3. Research to Build and Present Knowledge
4. Range of Writing
Speaking and Listening
1. Comprehension and Collaboration
2. Presentation of Knowledge and Ideas
Language
1. Conventions of Standard English
2. Knowledge of Language
3. Vocabulary Acquisition and Use
Foundational Skills (K-5)
1. Print Concepts
2. Phonological Awareness
3. Phonics and Word Recognition
4. Fluency
Literacy in History/Social Studies, Science, and Technical Subjects (Grades 6-12)

Major Mathematical Instructional Shifts

1. **Focus:** Focus strongly where the standards focus.

2. **Coherence**: **Think** across grades, and **link** to major topics

3. **Rigor:** In major topics, pursue **conceptual understanding,** procedural skill and **fluency,** and **application**

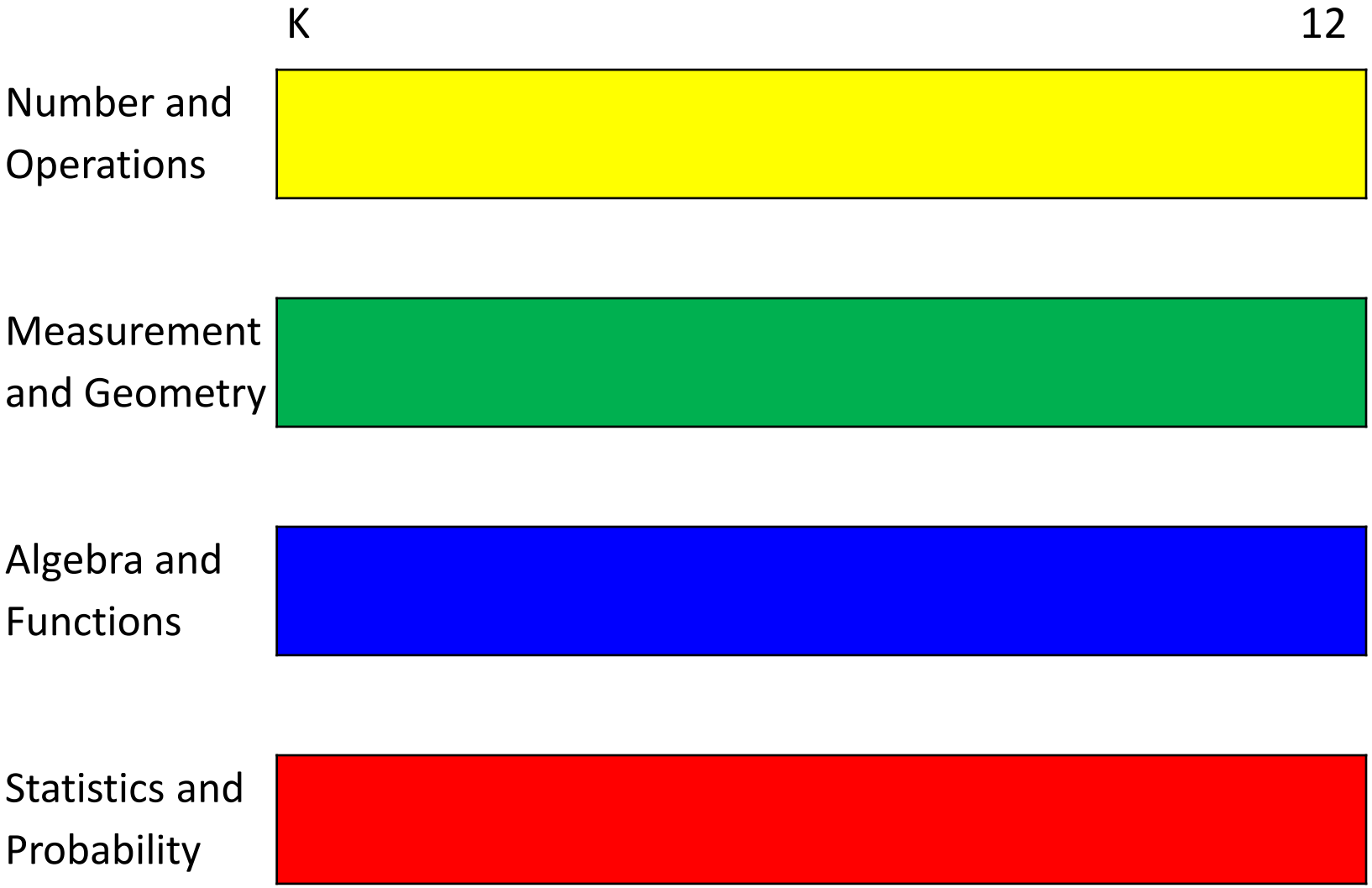
Why: Item One - **Focus**

Focus strongly where the Standards focus

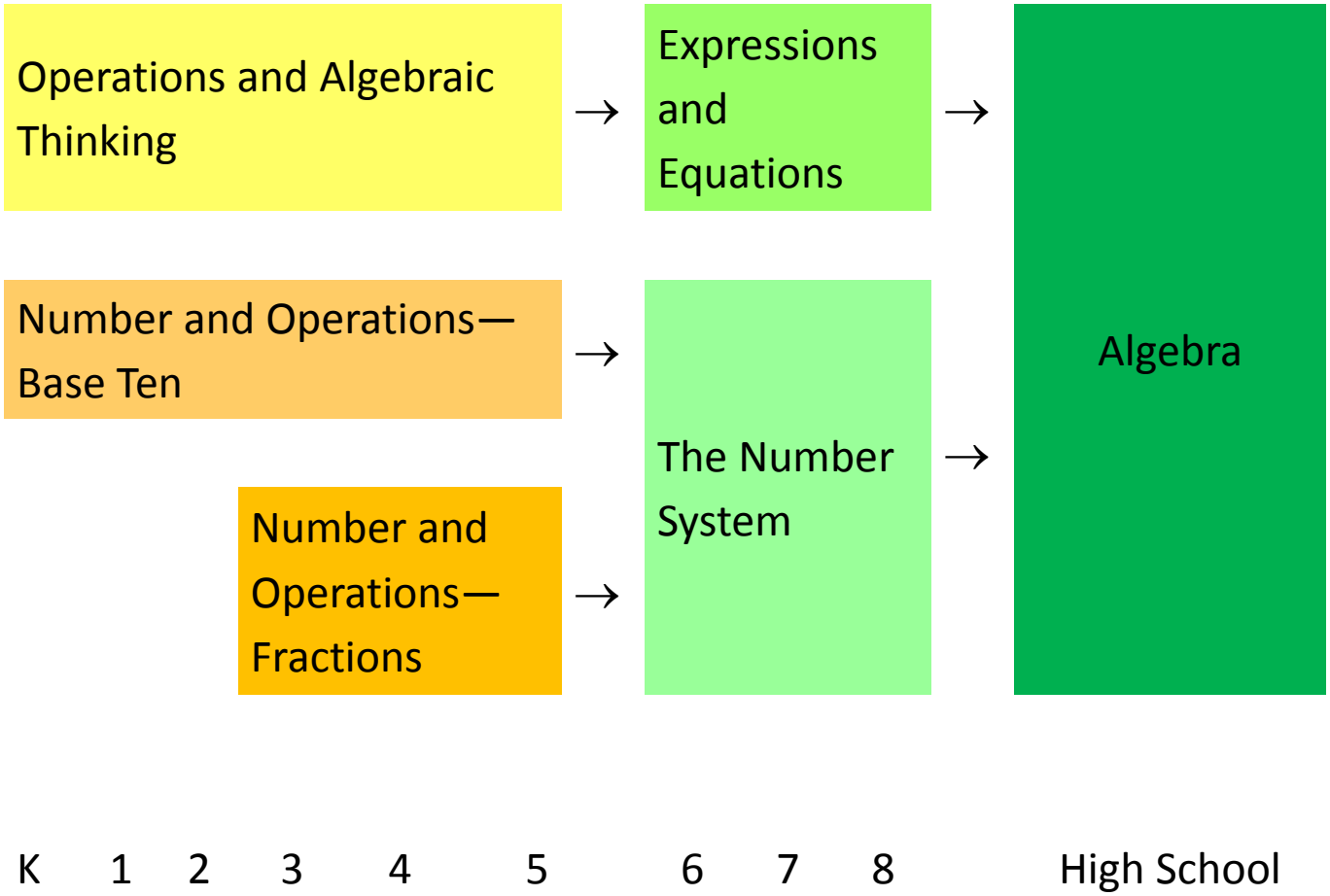
- Significantly narrow the scope of content and deepen how time and energy is spent in the math classroom

- Focus deeply only on what is emphasized in the standards, so that students gain strong foundations
- **K –** Counting, Sequencing, Value, Measurement
- **1st & 2nd –** Adding, Subtracting-Whole numbers & Quantity
- **3rd –** Multiplication, Division, Fractions
- **4th, 5th –** Fractions…moving to ratios at the very end

Traditional U.S. Approach



Focusing attention within Number and Operations



Why: Item Two **Coherence**

Coherence across grades, link to major topics within grades

- Carefully connect the learning within and across grades so that students can build new understanding onto foundations built in previous years.

- Begin to count on solid conceptual understanding of core content and build on it. Each standard is not a new event, but an extension of previous learning.

Fraction example:

"The **coherence** and sequential nature of mathematics dictate the foundational skills that are necessary for the learning of algebra. The most important foundational skill not presently developed appears to be proficiency with fractions (including decimals, percents, and negative fractions). **The teaching of fractions must be acknowledged as critically important and improved before an increase in student achievement in algebra can be expected**."

Final Report of the National Mathematics Advisory Panel (2008, p. 18)

Why: Item Three: **Rigor**

Rigor pursue conceptual understanding, procedural skill and fluency, and application

- The CCSSM require a balance of:
  - Solid conceptual understanding
  - Procedural skill and fluency
  - Application of skills in problem solving situations

- This requires equal intensity in:
  - Time
  - activities
  - resources in pursuit of all three

A Word about Fluent in Math…

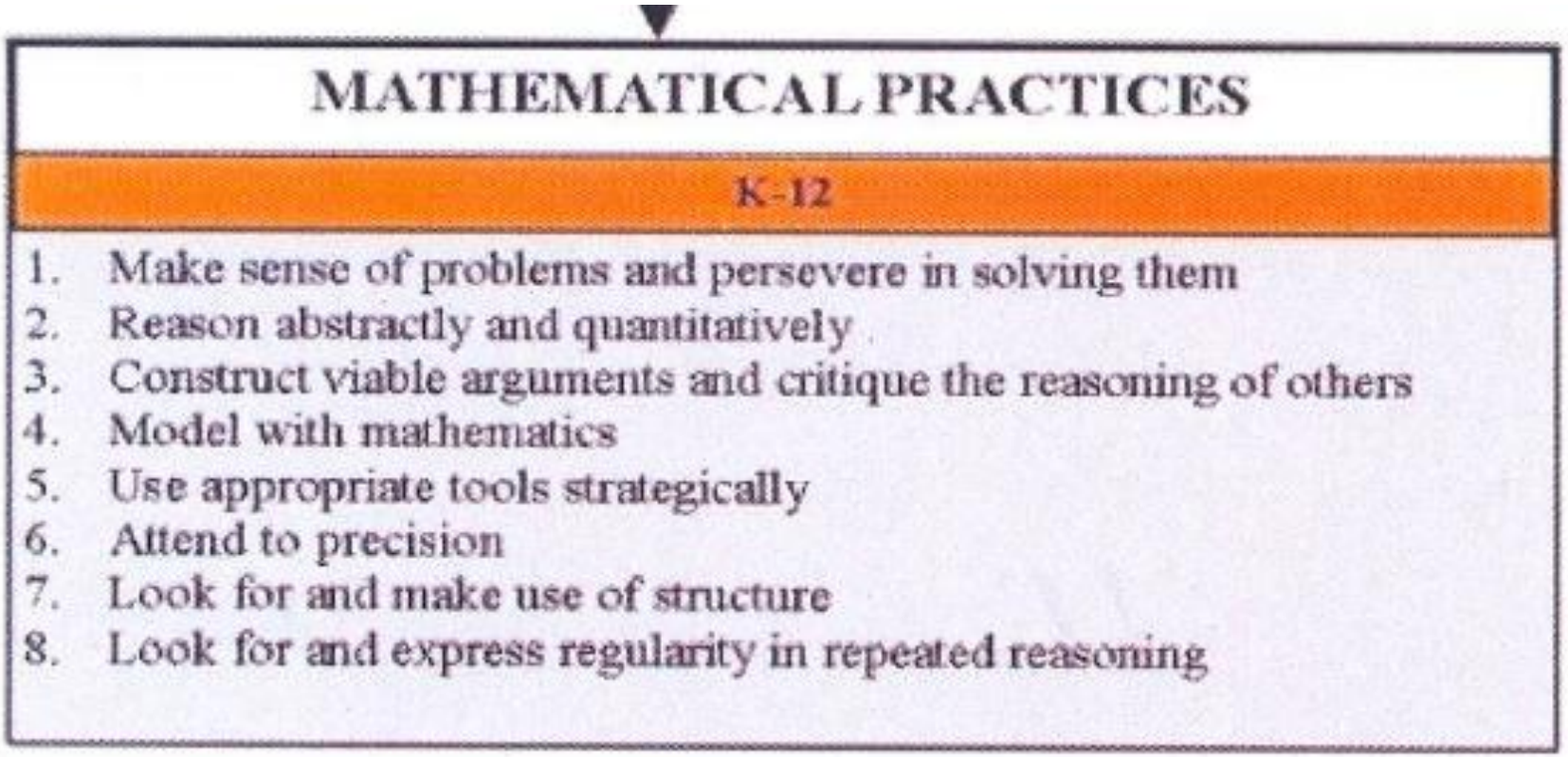
- *Fluent* in the particular Standards cited here means "fast and accurate." It might also help to think of fluency as meaning the same thing as when we say that somebody is fluent in a foreign language: when you're fluent, you flow. Fluent isn't halting, stumbling, or reversing oneself. Confidence?

- The word *fluency* was used judiciously in the Standards to mark the endpoints of progressions of learning that begin with solid underpinnings and then pass upward through stages of growing maturity. K-5 Foundation to 6-12…

Required Math Fluencies in K-6

Grade	Standard	Required Fluency
K	K.OA.5	Add/subtract within 5
1	1.OA.6	Add/subtract within 10
2	2.OA.2 2.NBT.5	Add/subtract within 20 (know single-digit sums from memory) Add/subtract within 100
3	3.OA.7 3.NBT.2	Multiply/divide within 100 (know single-digit products from memory) Add/subtract within 1000
4	4.NBT.4	Add/subtract within 1,000,000
5	5.NBT.5	Multi-digit multiplication
6	6.NS.2,3	Multi-digit division Multi-digit decimal operations

No Penalty from NECAP to CCSS



Implementation

- CCSS provides time and space to focus on doing fewer things better
- Implementation of the CCSS must be integrated into other efforts of educational improvement, not one more thing
- Commit to a small number of metrics that address
  - Teacher Practice and Knowledge
  - Instructional Materials and Resources
  - Student Work

Unpacking and Using the Standards

- North Carolina –
- Kansas
- New York

http://www.dpi.state.nc.us/acre/standards/common-core-tools/#unpacking

Student Readiness

- 21st Century Skills – "soft skills"
- "Habits of Mind"
- "Capacities of a Literate Individual"
- Technology Skills

HABITS OF MIND

We would like students to:

1. Be curious about "how" and "why" math works
2. Take risks when doing math
3. Work hard and be persistent when doing math
4. Value exploration and investigation when doing math
5. Develop confidence in solving math problems
6. Develop math intuition when solving math problems
7. Develop logical thinking skills when solving math problems
8. Write and discuss math using math terms correctly
9. Learn how to estimate effectively
10. Be able to check answers for reasonableness and accuracy
11. Know when and how to use different problem solving strategies
12. Know how to use technology appropriately and effectively
13. Appreciate that math is the language of nature and science
14. Use math to simplify and make sense of real life situations
15. Recognize that it is possible to learn from mistakes
16. Become quantitatively literate
17. Be able to work effectively as a member of a group
18. Be able to work effectively alone

Review – Major Literacy Instructional Shifts in the Common Core

1. **Building knowledge** through **content-rich nonfiction**
2. Reading, writing, and speaking grounded in **evidence from text,** both literary and informational
3. Regular practice with **complex text** and its **academic language**

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Resources to Support Instruction

- **Websites to support Common Core Instruction**
- Math Teachers – www.nctm.org
- Common Core – www.corestandards.org
- All – www.achievethecore.org
- Testing – www.smarterbalanced.org
- College and Career Ready Standards - https://www.epiconline.org/

- **APPS to support Common Core Instruction**
- Math lesson evaluation - $1.99
- Study Island
- Common Core App - look like a green atom/moving part

- **NECAP SERVICE CENTER – 1-877-632-7774**

Want to Keep in Touch….

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