

Math

Science

M4. Models with mathematics

S2: Develop & use models

S5: Use mathematics & computational thinking

S1: Ask questions and define problems

S3: Plan & carry out investigations

S4: Analyze & interpret data

S6: Construct explanations & design solutions

E2: Build a strong base of knowledge through content rich texts

E5: Read, write, and speak grounded in evidence

M3 & E4: Construct viable arguments and critique reasoning of others

S7: Engage in argument from evidence

S8: Obtain, evaluate, & communicate information

E3: Obtain, synthesize, and report findings clearly and effectively in response to task and purpose

E1: Demonstrate independence in reading complex texts, and writing and speaking about them

E7: Come to understand other perspectives and cultures through reading, listening, and collaborations

ELA

M1: Make sense of problems and persevere in solving them

M2: Reason abstractly & quantitatively

M6: Attend to precision

M7: Look for & make use of structure

M8: Look for & make use of regularity in repeated reasoning

E6: Use technology & digital media strategically & capably

M5: Use appropriate tools strategically

Commonalities Among the Practices in Science, Mathematics and English Language Arts

Based on work by Tina Cheuk ell.stanford.edu

Practices in Mathematics, Science, and English Language Arts*

Math	Science	English Language Arts
<p>M1. Make sense of problems and persevere in solving them.</p> <p>M2. Reason abstractly and quantitatively.</p> <p>M3. Construct viable arguments and critique the reasoning of others.</p> <p>M4. Model with mathematics.</p> <p>M5. Use appropriate tools strategically.</p> <p>M6. Attend to precision.</p> <p>M7. Look for and make use of structure.</p> <p>M8. Look for and express regularity in repeated reasoning.</p>	<p>S1. Asking questions (for science) and defining problems (for engineering).</p> <p>S2. Developing and using models.</p> <p>S3. Planning and carrying out investigations.</p> <p>S4. Analyzing and interpreting data.</p> <p>S5. Using mathematics, information and computer technology, and computational thinking.</p> <p>S6. Constructing explanations (for science) and designing solutions (for engineering).</p> <p>S7. Engaging in argument from evidence.</p> <p>S8. Obtaining, evaluating, and communicating information.</p>	<p>E1. They demonstrate independence.</p> <p>E2. They build strong content knowledge.</p> <p>E3. They respond to the varying demands of audience, task, purpose, and discipline.</p> <p>E4. They comprehend as well as critique.</p> <p>E5. They value evidence.</p> <p>E6. They use technology and digital media strategically and capably.</p> <p>E7. They come to understanding other perspectives and cultures.</p>

* The Common Core English Language Arts uses the term “student capacities” rather than the term “practices” used in Common Core Mathematics and the Next Generation Science Standards.