

# Math

# Science

- 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

- 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

- E6:** Use technology & digital media strategically & capably
- M5:** Use appropriate tools strategically

- 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

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