

Looking For Standards In The Mathematics Classroom

The Common Core State Standards (CCSS) define eight standards for students' Mathematical Practice. Not all standards will be evident every time, in every activity. You will find evidence of the standards that students are applying in the work and the talk of students.

(see reverse)

CCSS Standards for Mathematical Practice

The Standards for Mathematical Practice describe eight varieties of expertise that students should develop:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Council of Chief State School Officers and National Governors Association. (2010). Common Core State Standards for Mathematics. Available: http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf [June 2011]



5x8 Evidence-Gathering Card

| Principle | Student Vital Behaviors |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Logic connects sentences <i>Practices 1, 2, 3, 6</i> | Students say a second sentence (spontaneously or prompted by the teacher or another student) to explain their thinking and connect it to their first sentence. |
| Reasoning develops when students develop viable arguments <i>Practices 1, 2, 3, 6, 7, 8</i> | Students talk about each other's thinking (not just their own). |
| Students write explanations <i>Practices 1 - 8</i> | Students write their mathematics , and connect multiple representations of their thinking (e.g. pictures, diagrams, numbers, words, tables, graphs, expressions, etc.). Students revise their thinking, and their written work includes revised explanations and justifications. |
| Academic success depends on academic language <i>Practices 3, 6</i> | Students use general and discipline-specific academic language in their oral and written explanations and discussions (spontaneously and/or prompted by the teacher or other students.) |
| ELLs develop language through content | English learners produce language that communicates ideas and reasoning, even when that language is imperfect. They take advantage of available language supports and resources: peer support, sentence frames, multiple choice oral responses, visual representation, graphic organizers, home language, cognates, etc. |
| A growth mindset matters | Interview- Do students believe that they can learn to be good at math by learning more math, by working hard, and persevering to make sense of problems? Or do students think they cannot change how good at math they are? |
| Equity (The foundation for the above) | Which students are participating? (e.g. boys more than girls, the same few students, ELL and special ed students?) Are they volunteering? Called on to do math? Talking about math in their group? Off task? All students ask math questions. |

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