Mastering the Common Core Mathematical Practices

Through Problem-Solving Strategies

http://mathforum.org/blogs/max/ccss/

About

The new Common Core State Standards being adopted by states across the country include eight mathematical "processes and proficiencies" that students should develop. But how do these practices develop and how do students come to master them?

The Math Forum has been developing a series of Mathematical Problem-Solving and Communication Activities, designed to help students master problem-solving strategies. These problem-solving strategies support students' development of mathematical practices.

For More Information

To learn more about the Standards for Mathematical Practices at the CCSS site, visit:
http://www.corestandards.org/Math/Practice

To learn more about the Problem-Solving and Communication Activity Series, visit:
http://mathforum.org/pow/support/activityseries/

Aligning Mathematical Practices with Problem-Solving Strategies

Common Core Mathematical Practices	Problem-Solving Strategies
1. Make sense of problems and persevere in solving them.	1. Understand the Problem 2. Guess and Check: "Testing 1, 2, 3, 4" 3. Solve a Simpler Problem 7. Change the Representation 10. Plan and Reflect 11. Get Unstuck
2. Reason abstractly and quantitatively.	1. Understand the Problem: "I Notice/I Wonder" 2. Guess and Check 4. Make a Table 8. Make a Mathematical Model
3. Construct viable arguments and critique the reasoning of others.	5. Look at Cases 6. Use Logical Reasoning
4. Model with mathematics.	8. Make a Mathematical Model
5. Use appropriate tools strategically.	10. Plan and Reflect
6. Attend to precision.	2. Guess and Check: "Testing 1, 2, 3, 4" 10. Plan and Reflect 11. Get Unstuck 13. Wonder
7. Look for and make use of structure.	1. Understand the Problem: "I Notice/I Wonder" 3. Solve a Simpler Problem 12. Play
8. Look for and express regularity in repeated reasoning.	2. Guess and Check 4. Make a Table