



Kindergarten through Grade Twelve Standards for Mathematical Practice

Unit 6: Summary and Next Steps

CALIFORNIA DEPARTMENT OF EDUCATION
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Unit 6: Summary, Next Steps, and Resources

- Module summary
- Suggested next steps
- Self-reflection survey
- Post-assessment
- Resources and glossary

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Module Summary

The learning objectives from previous units are compiled below to summarize this module and provide a sense of the scope and nature of the SMP.

- You should now be able to describe the difference between the content standards and the practice standards.
- You have been introduced to the eight SMP and why they are important.
- You should now be able to explain how the SMP define what it means for a student to be mathematical proficient.

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Learning Objectives, Cont.

- You should now be able to describe why, to be successful in mathematics, all students need to:
 - Develop overarching habits of mind
 - Reason and explain
 - Model and use tools
 - See structure and generalize

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Learning Objectives, Cont.

- You should now be able to explain what it means for students to:
 - Make sense of problems and persevere in solving them
 - Attend to precision
 - Reason abstractly and quantitatively
 - Construct viable arguments and critique the reasoning of others
 - Model with mathematics
 - Use appropriate tools strategically
 - Look for and make use of structure
 - Look for and express regularity in repeated reasoning

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Looking Back

After exploring each of the previous five units, reflecting upon your learning, and acquiring ideas about how to bring the practices to your students, you should have a much more comprehensive understanding of the SMP.

Let's take a moment to revisit the first video you viewed in Unit 1 of this module.

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Looking Back

Re-watch the video of students engaged in doing mathematics that you first viewed in Unit 1. As you watch, take note of what you observe the students doing.

Grade 2: Classroom Discussion: Describing Patterns

Grade 6: Classroom Discussion: Sorting Angles

Grade 8: Classroom Discussion: Speed and Rate Using Technology

Videos available on the Brokers of Expertise Web site at
<http://myboe.org/portal/default/Content/Viewer/Content?action=2&scld=306591&scld=11776>

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Small Group Discussion

In small groups, discuss the following:

- What do you see the students doing and in what ways are they engaged?
- Describe their thinking, problem solving, and interactions.

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Whole Group Discussion

On this second viewing of the video(s):

- Have your observations changed? Explain.
- What do you believe contributed to these changes?

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Reflection and Implementation

Throughout the module, purposeful teaching has been emphasized; particularly the type of teaching that would increase students' use of the SMP.

Incorporating effective strategies and ensuring students are engaged in learning requires thoughtful planning.

How will you take what you learned into your classroom?

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Taking Action: Planning Next Steps

- Retake the Self-Reflection Survey you completed in Unit 1 (**Handout 6.1.1**).
- Compare your responses to the initial survey (**Handout 1.2.4**).

How has your confidence in your ability to implement the SMP increased? Be specific.

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Taking Action: Planning Next Steps

- How will you ensure all students, including English learners, students with special needs, underperforming, and advanced students are engaged in the SMP throughout the school year?
- What immediate changes can you make in your classroom to provide students opportunities to practice the SMP?
- How can you incorporate 21st Century Skills as you begin to implement the SMP?

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Post-Assessment

Complete the Post-Assessment
(**Handout 6.1.2**)

- Compare your results to the Pre-Assessment that you took in Unit 1
(**Handout 1.0**)

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Closure

This module was designed to develop and enhance your understanding of the SMP, as well as provide you with meaningful experiences in how these practices can be implemented in your classroom.

As you begin planning instruction for the future, you may find that you have new questions and want more information.

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Closure

- Think about how you can engage with colleagues to share your learning and build collaborations to learn together.
 - What support do you need?
 - Who are those colleagues?
- Think about how you might communicate to administrators, parents, and/or community members about the CCSS and the SMP.

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Additional Information

Additional information is available on the

Brokers of Expertise Web site

<http://myboe.org/portal/default/Content/Viewer/Content?action=2&scld=306591&scld=11803>

- Acknowledgements
- Glossary of terms
- CCSS Mathematics Web sites
- Publications, research, and articles

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Completion

Congratulations!

You have completed
*Kindergarten through Grade Twelve Standards
for Mathematical Practice*

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