

Mathematics Standards in North Carolina



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Mathematics Standards in North Carolina



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Session Outcomes



- Reflect on current implementation of standards
- Articulate their use of the universal practices in planning
- Discuss how this planning style aligns with new assessment structures
- Create activities based on new learning with coaching support

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Agenda



- Introduction/Reflection
- Planning at a Glance (Common Core Standards, Universal Practices)
- Assessment Materials (Performance Events, Tasks, 21st Century)
- Content Work Time
- Next Steps

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Reflection And Self-Analysis



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Says, Means, Matters



Consider the standard you felt that you did/ would struggle with.

What does it *SAY*?

(Exact words)

What does it *MEAN*?

(In your own words, what should students be able to say in an “I can” statement when they have met this standard?)

Why does it *MATTER*?

How does this standard enable the student to do more or better mathematics?

How does this standard manifest itself in the world?

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Says, Means, Matters Example



- Says:
 - [CCSS.Math.Content.8.G.B.7](#) Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

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Says, Means, Matters Example



- Means:
 - I CAN use the Pythagorean Theorem to find a side length in a right triangle in a real world, 2-D setting.
 - I CAN use the Pythagorean Theorem to find a side length in a right triangle in a real world, 3-D setting.
 - I CAN use the Pythagorean Theorem to find a side length in a right triangle in a mathematical problem, 2-D setting.
 - I CAN use the Pythagorean Theorem to find a side length in a right triangle in a mathematical problem, 3-D setting.

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Says, Means, **Matters** Example



- [Cowboys are Hoping Practice + Math = Playoffs](#)
- [Surveying & other jobs](#)
- Trigonometry
- The Distance Formula

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Now You Try



Use the standard you identified as one of your challenges.

We'll be around to help!

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Combining Content with Practice



The Practice Standards for Math

And

The Anchor Standards for Language

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Universal Practices - ELA



- Demonstrate independence
- Build strong content knowledge
- Respond to the varying demands of audience, task, purpose, and discipline
- Comprehend as well as critique
- Value evidence
- Use technology and digital media strategically and capably
- Come to understand other perspectives and cultures

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Standards for Mathematical Practice



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

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Sentence Frame for Planning



If I want students to be able to
(insert I CAN statement here),

I must build in opportunities for them to
(insert math practice or ELA practice or some of each here).

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Sentence Frame Example



If I want students to use the Pythagorean Theorem to find a side length in a right triangle in a real world, 2-D setting,

then I must build in opportunities for them to

- make sense of problems and persevere in solving them,
- reason abstractly and quantitatively, and
- build strong content knowledge.

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Now You Try...



Ask us... We're here to help!



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Good Sources of Assessment Items



- <http://www.ncpublicschools.org/accountability/testing/releasedforms>
- <http://www.smarterbalanced.org/sample-items-and-performance-tasks/>
- <http://map.mathshell.org/materials/index.php>
- <http://illustrativemathematics.org/>
- <http://illuminations.nctm.org/>

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Guiding Questions for Planning



What do I want them to master?

What will I put in front of them to help them master it?

What will I do when they need support to master it?

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Collegial Planning Time



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Next Steps – How Can We Help?



What can we commit to based on our new learning?

What support do you need from your coach to do so?

Additional questions for us?

*Be sure to include your name, school, and email!

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