



Fostering excellent science education in Minnesota for all!

Dear Minnesota School Board Members, Administrators, Curriculum Specialists and Other Stakeholders,

We are writing this letter to you as members of the Minnesota Science Teachers Association, as we are working toward transitioning to the 2019 Minnesota Science Standards. We are united in our commitment and enthusiasm for helping students make sense of the world they live in. As facilitators of professional development and training in the new standards, we want to share a bit about our journey as we continue to gain experience in the hopes that it will help you provide effective, pragmatic support to your teachers and students.

The National Science Teachers Association Position Statement on The Next Generation Science Standards³ provides in detail an *Implementation Plan*. It outlines criteria for a successful collaboration of the entire school community at many different levels to make the transition to three-dimensional science teaching. We encourage you to consider this document as a guide for how to best support your teachers and students during Implementation Planning. **It is important to understand change will happen incrementally, through practice, trial and error, and reflection on the part of dedicated, motivated educators over years.** This is truly the honing of a brand new skill set for teachers. Your understanding and support are crucial to the success of our teachers and students.

These are *three significant take-aways* that have come out of our experiences in our own classrooms, as well as our work with Minnesota science teachers, that we think are essential for you to consider:

- **Teachers need time to become familiar with the new standards and teaching strategies, as well as encouragement and support as they practice implementation over time in their classrooms.**
- **Teachers need ongoing professional development in these new strategies, as well as in content.**
- **Teachers are very much like our students - they succeed when they feel supported and safe, in an environment that encourages risk taking and reflection.**

What can you do as educational leaders?

Because of the significant shifts in content and pedagogy, this will require a **long-term, systematic effort**. Specifically, it will require dynamic changes in instruction, curriculum, assessment, teacher preparation, and professional development, as well as support from district leadership and the public³.

- **Embrace the vision** of science teaching and learning as outlined in the *Framework for K-12 Science Education* at the district level and make it a priority and become familiar with it.
- **Commit the resources** (time, funds and opportunities) to support teachers and relevant stakeholders.
- **Provide district level support** of the new standards, teacher preparation, implementation over time, share this support with the community, and provide equitable access and opportunities for teachers.



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- **Advocate, value and support the implementation process and practice patience** as teachers work to become successful practitioners of three-dimensional science teaching.
- **Encourage via evaluation** the formation of classroom atmospheres that support and reinforce the attitude of reflection, respect, logical thinking, and consideration of scientific facts based in evidence.
- **Ask for help.** We are more than willing to answer questions, provide insight and advice, and/or connect you to people that can. We are all members of MnSTA, and are working in partnership as a community.

Thank you for taking the time to read this letter. Our hope is that you will continue to learn about these new and exciting changes in science education, and that you will be understanding and supportive of teachers and students as they embark on the first steps of this transition.

Sincerely,

MnSTA Board of Directors

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Sources

1. 2019 Minnesota State Science Standards. <https://education.mn.gov/MDE/dse/stds/sci/>
2. A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012). <https://www.nap.edu/catalog/13165/a-framework-for-k-12-science-education-practices-crosscutting-concepts>
3. NSTA Position Statement: The Next Generation Science Standards. <https://www.nsta.org/nstas-official-positions/next-generation-science-standards>