

WSST/DPI Science - Equity and Access in Science Education Position Statement

Equity in science education means that every student has consistent access to the resources and educational rigor they need in their education across race, gender, ethnicity, language, ability, sexual orientation, age, family background, religion, and/or family income. They are “empowered, challenged, supported, and provided full access to become successful science learners.”¹ All students should have access to learning that is *rigorous* (at least grade-level and aligned to the three dimensions of the science standards), *relevant* (tied to their community, identity, culture, and interests), and *relationship-based* (includes respectful and meaningful relationships with adults) to support them in becoming college, career, and community ready.

Students must see themselves as able to, as well as *be* able to, engage in challenging scientific reasoning and practice that requires them to make sense of the world around them and solve meaningful problems. Throughout their lives, they will need to evaluate the scientific merits of information from the world around them. Students should also be ready and able to apply science as a tool to advocate for equality and justice within their own communities.

When school structures divide students into honors and conventional science classes, educators and school systems give students the message that they are or are not capable scientific thinkers. Tracked course pathways should be eliminated. Because all students deserve access to rigorous courses and high standards, they must be provided with the support needed to be successful in those courses. Further, to see themselves as scientists, students must *do* real science where their cultural knowledge, languages, and ways of thinking are valued. Students should have the opportunity to make meaningful choices about their learning pathway and how they show their understanding.

Experience shows that students’ identities as being a “science person or not” are often formed by the end of elementary school. Thus, it is critical that ***all*** students engage in standards-based science learning beginning in kindergarten. Further, they should be supported in investigating, questioning, and wondering about the world around them from their preschool years onward.

As members of the Wisconsin Science Education Community, we acknowledge and know that we must teach the history and ongoing problems of racism, sexism, and other forms of prejudice in the science and education communities. Science is cultural and situated within human understandings and norms of its time, which means it has historically been created and used as part of oppressive systems. While there have been improvements, mainstream science practice still tends to reflect a white, male, heteronormative perspective, excluding a significant portion of human experience and knowledge. Access to jobs and education, and support within those

¹ Language from [Wisconsin DPI Equity Statement](#) and [NSTA Gender Equity in Science Education Position Statement](#)

environments, has not been and continues to fail to be equitable for all groups of students. Therefore, we must teach and wrestle with the ethical horrors in how science and research (e.g. medical testing) has been done with certain communities and racial/ethnic groups, including but not limited to Indigenous, Black, LGB, and Trans* people.

We firmly state that Black Lives Matter and support efforts to promote social justice. We acknowledge that our students, families, and communities represent a wide range of ways of knowing and being and all have valuable contributions to make within and beyond the classroom. We know that not all perspectives and voices have been heard and been adequately or equally part of the educational system. As a science education community, it is our job, not to “fix” the groups who are oppressed, but to be co-creators and co-advocates with them to make sure that both science and society are improved through the respectful collaboration of diverse, evidence-based perspectives.

As individuals and as a community, we commit to supporting equity in science education by doing the following:

- Calling out and addressing racism, sexism, other prejudices, or injustice, whether in the classroom or the community;
- Engaging in challenging conversations and having the grace to believe that all people can learn and grow;
- Advocating for and ensuring rigorous scientific learning for all students in our schools and other organizations;
- Sharing the message that all students can be scientists and other STEM professionals by eliminating tracking and by detailing stories of a diverse range of professionals whose work connects to class subjects;
- Recruiting and retaining a wider diversity of members, leaders, newsletter authors, and conference presenters;
- Ensuring that attention to equity is embedded and addressed in conference presentations, newsletter articles, and other organizational activities;
- Teaching each other about institutional and societal racism and other prejudices, and how that plays out in science education and the scientific enterprise;
- Supporting educators in becoming advocates for anti-racism and social justice in their schools and communities;
- Supporting all science teachers and education leaders in implementing equitable instruction and systems of support.