



How to build an equitable learning community in your science classroom

What Is The Issue?

Equitable classroom communities foster trusting and caring relationships. They make cultural norms explicit in order to reduce the risk of social injuries associated with learning together. Teachers are responsible for disrupting problematic practices and developing science classroom communities that welcome all students into safe, extended science learning opportunities. However, this is tricky work. This tool describes a range of classroom activities designed to cultivate communities that open up opportunities for all students to learn.

WHY IT MATTERS TO YOU

- **Teachers** can use these activities to improve equitable opportunities for students.
- **District Staff & PD Providers** can use these activities and resources, with their embedded reflection questions, in professional learning contexts and with their Professional Learning Communities (PLCs) to model equitable classroom practices.
- **School Leaders** can encourage the use of these strategies by educators as well as look for this type of activity during classroom walkthroughs.

Things to Consider

- **Science learning is a cultural practice**—based on [community norms, beliefs, and values](#). All students and teachers come into science learning settings with cultural differences from their prior experiences. Individuals who have existing cultural practices closest to those reflected in the learning space are more likely to feel confident and ready to learn than individuals whose practices are more different from classroom norms.
- **Community building prepares all students for the deep sensemaking discourse experiences required by the vision of new science standards.** In this approach, [classrooms collectively explore and make sense of phenomena](#)—which requires that all students feel comfortable contributing and that differences in *how* they contribute are respected.

Recommended Actions You Can Take

Community Formation Activities:

- **Get to know your students' diverse experiences with schooling and science** through intentional classroom activities. Start with [The Story of a Name](#), [The Shoe Game - Equity versus Equality](#), and [Pictures of Our Lives](#). They help bridge school, community, and family cultural histories.
- **Bridge learning between school and students' everyday lives** through [Science Journal Take Home Quests](#), [Self-Documentation](#), or by having students interview community members about science topics.
- **Explore perceptions students have about science, scientists, and their own capability to develop science identities.** The activity [Scientists & Science Identities](#) extends a common science classroom activity with pattern analysis, critical reflection, and an examination of alternative perceptions of science involvement.

Sustaining Equitable Communities:

- **Disrupt adverse stereotypes, storylines, and practices.** These may be about disciplining behavior based on suspicion, resistance, or criminalization. They may be about STEM- and/or intelligence-related views tied to race, ethnicity, gender, class, ability, immigration history, gender identity, sexual identity, or some other dimension of difference.
- **Engage in effective classroom talk** to support student communication, build explicit norms for participation, and provide resources for science talk practices. Improving science talk creates opportunities for all students to engage in science learning (see [talk formats](#), [talk scaffolds](#)).
- **Engage in ongoing instructional feedback to expand your understanding of your learners** through exit tickets, surveys, or focus groups that elicit information about students' learning experiences.

REFLECTION QUESTIONS

- What strategies can you use to determine if your classroom community is equitable?
- What equity project are you planning to engage in? Develop a plan to increase your professional learning in this area.

Attending to Equity

- Science teachers may hesitate to spend time on community building—as they see it to be outside their role or taking up valuable instruction time. But the **learning gains that come from establishing an equitable community more than compensate for the time spent doing so.**
- Engage in [critical reflection for teacher learning on issues of equity](#) individually, with colleagues, and in your PLC.
- Getting to know your students through community building helps you understand how to best support their learning. Some students may have [resistance to schooling](#), to teachers as authority figures, or to other students. These social interactions are a real part of the classroom, have social and historical roots, and impact students' abilities to learn. Intentional community building can help identify these tensions in ways that provide teachers with information to inform equitable instruction for all.
- **Community building activities can teach how the enterprise of science works** (e.g., by highlighting [scientific uncertainty](#)).

ALSO SEE STEM TEACHING TOOLS:

- #15 [Equity in Science Education](#)
- #47 [Equitable Sensemaking](#)
- STT [Learner Discourse Playlist](#)

