Lesson 0 - Setting the Stage
Laying the foundation with students for the work ahead

NGSS connections: **Practices:** *Engaging in Argument from Evidence*

Starting point for instructors

This lesson explores things instructors can and should do with their students to frame productively the coming unit.
- Instructors should also have read Thinking about Facilitation to consider things that they can and should do on their own to prepare to facilitate productively.
- Like any science teaching, it's crucial to remember that your students bring prior experiences and great ideas to this process. Introducing them to this unit goes best if you can find ways to involve them in the process and ask them to help set the stage and shape the unit.

Pre-Lesson Student Exploration / Bell-Ringer

Before coming to class/at the start of class, students need to:

Instructors should ask students to complete an anonymous pre-survey, instructions linked here.

Some instructors introduce this unit by having students read an explanatory introduction and do some pre-unit homework to complete prior to the first class. An example is linked here, and instructors are encouraged to make their own. [20-50 minutes]

In-Class Investigations

Verbal Introduction [5 - 10 minutes]

Talking about society, identity and justice in a science class is, for many, a shift from what they're used to. For that reason, it can be useful to verbally address some of what students may be wondering. (This reviews some of the topics addressed by the introductory handout students may have read.)
- When explaining why this topic belongs in our class, instructors tend to highlight two things:
    - learning about the culture of a scientific discipline is as important as learning content.
    - not discussing underrepresentation perpetuates the status quo.

    For many instructors, this explicit explanation leads to less pushback from students. It supports talking about topics that are likely on students' minds anyway.
- When articulating how the instructor's role might be different, one can focus on how the leader's job is to facilitate productive discussion, not to give answers. Most facilitators emphasize repeatedly that students are not expected or required to agree with the instructor or with what's 'politically correct', but they are not allowed to ignore the ideas presented. Being able to articulate both sides of an argument, and to make one's own decisions, is a crucial skill in any difficult conversation and these lessons are designed to introduce students to perspectives they may not have considered.

- Instructors can acknowledge that talking about your own identity as it relates to issues of social justice can feel different than talking about science, and that it is a skill many people are still developing. You can ask students to reflect on why this skill might be valuable for them, what challenges they will face, and what goals they have to overcome them. Instructors often use *Stand Up Slips* to help facilitate these conversations, which transition nicely into the need for norms below.

Read/Discuss: Creating Norms for Productive Discussion [10 minutes]

Establishing discussion norms for the unit helps to create conversations that are honest and brave enough to generate growth while limiting the potential of harm to students from marginalized identities. Even if instructors have norms for their classrooms year-round, we encourage considering new norms specifically for the Underrepresentation Curriculum Project (URC).

There is no one right set of norms. One example set that has been used is here, but instructors are encouraged to make their own (with students if possible!). After each implementation, most URC facilitators make small changes for the following year.

Students have an opportunity to read through the norms. Instructors then ask if they have questions about what any of these mean, and then ask them to write about the one that they most need our class to adhere to in order for them to participate best before sharing their writing with a partner. The exercise culminates by asking whether we need to modify or add to this list, and then asks students to verbally commit to these norms.

It may be valuable to keep the norms visible throughout the URC, on a larger poster or a whiteboard that's never erased. We ask students to briefly re-read them at the start of each URC lesson. Not only does this frame the day's activities in a positive way, but when comments cross the line, it's easier for everyone to remind one another where that line is.

Instructor Note:
Some instructors choose norms for their URC and some co-construct those norms with their students. Decide which will work better for your context and, regardless of which you choose, make sure that students have an opportunity to add to or modify the norms, as well as expressing concerns, so that they are actively adopted.

The pre-reading assignments in this curriculum are particularly important. Instructors using the URC have found that it's better for students to step out of class (if feasible) rather than participate in the discussion and pretend to have read. You can say something like, "I invite anyone who hasn't read the article to step out or to the side to read it and to rejoin the conversation when they are ready."

Classroom Discussion Routines

Routines to Encourage Risk-Taking: These instructor moves are deployed at various points in the URC curriculum. No need to memorize them all, but if a lesson mentions a particular technique, you can come back here to learn more about it.

For many students, growth in this area requires honesty, and honesty feels like a risk. It is good for students to be intentional with their words, but "playing it safe" can keep this unit from going where it needs to go. This section contains several routines that can be used throughout the URC, regardless of topic, to help students be honest without feeling too exposed.

Use evidence to support your claims

Write, Pair, Share

Anonymous Polls

Silence Breakers

Instructor Leaves the Room

What Hasn't been Said?

Stand Up Slips

Manual Thermometer

Routines to Encourage Lasting Change: Emotional Check-Ins

Random Share Out Using Cards

Resources

- Lesson Plan Resources