



## Science Discourse: Supporting Sensemaking for All Learners

### Design of Module

- This module is intended to provide guidance in the successful implementation of meaningful science discourse for all students, supporting the three-dimensional learning through collaboration called for in the *Kentucky Academic Standards (KAS) for Science*. These materials to be used in professional learning sessions at the district, school or department level.
- This module utilizes an open educational resource, OpenSciEd, to provide participants with a learning experience symmetrical to the classroom. Through that experience, the participants are immersed in science discourse to see what it looks, sounds and feels like as a learner.
- This module is divided into five sessions. It is recommended that the sequence of the sessions be maintained since each session builds upon one another. Skipping parts may result in less effective learning about how science discourse supports sensemaking for all learners. Within each session, participants will be planning their next steps for implementing meaningful science discourse.
- This module is designed to be administered in one and a half to two-hour professional learning sessions; however, the timeline and work sessions can be adjusted to best fit the structures schools and districts already have in place.
- Module facilitators may include, but are not limited to, a department chair, teacher leader or curriculum specialist, district leadership, school administrators, higher ed faculty, etc. With that in mind, the facilitator notes include content information and potential talking points intended to provide support to a facilitator who does not have extensive science experience.

### Goals of Module:

- Establish a classroom culture where all learners have access and opportunity to learn through science discourse.
- Develop a collaborative understanding of science discourse that supports all learners in sensemaking.
- Explore how both teachers and students contribute to science discourse.
- Examine why discourse is critical for sensemaking in the science classroom.
- Intentionally prepare to facilitate science discourse that supports sensemaking for all learners.

### Session Focus Questions:

**Session A:** How can we establish a classroom culture to ensure all learners have access and opportunity to learn through science discourse?

**Session B:** What is science discourse and how does it support sensemaking for all students?

**Session C:** How can both teachers and students contribute to science discourse?

**Session D:** Why is discourse critical for sensemaking in the science classroom?

**Session E:** How might we intentionally prepare to facilitate science discourse that supports sensemaking for all learners?