

**eCALLMS eWorkshop:
21st Century STEM Learning, Language and Culture
(Grades K-12)**

Essential Question: How can language and culture be used to anchor 21st century STEM learning?

Guiding Questions:

- **Unit 1:** How do the Next Generation Science Standards cultivate learning, language development and cultural competency?
- **Unit 2:** Which cross-cutting concepts in science have parallel language conventions? How can they be used to leverage learning?
- **Unit 3:** How can strategies for technical communication be used to promote science learning practices?
- **Unit 4:** How do the core idea criteria statements support interdisciplinary literacy for students?
- **Unit 5:** How can technology be used to enhance language and content literacy for multicultural students?
- **Unit 6:** Answer the Essential Question.

What is an eCALLMS eWorkshop?

eCALLMS eWorkshops have been designed as innovative and interactive multimedia resources for professional learning communities to collaboratively engage with. All of the eWorkshops seek to support improved classroom practices for teachers across grade levels and content areas as they work with bilingual students. The eWorkshops are flexible in that they can be started at any time convenient for the group taking them and they are either very low cost or free (where grant funding is available). Upon successful completion of the eWorkshop, participants may receive a certificate of completion documenting 12 professional development contact hours.

The eWorkshops are inquiry oriented and are guided by an essential question and a guiding question for each of the six units in an eWorkshop. Each unit follows the same three-part learning cycle that we call Explore, Make-It-Work, and Share.

- In Explore participants spend about 30 minutes exploring new ideas, content, concepts or perspectives.
- In Make-It-Work, participants are offered a minimum of two designed and completely supported options of how to make the new learning from Explore work in an actual classroom context. Make-It-Work takes around one hour of a participant's time and always has a "You Make-It-Work" option, which gives participants the flexibility to design their own approach or tweak one of the options we offered.
- Finally, participants Share their learning either in our online space (a threaded discussion) or Face-to-Face. Share usually takes around 30 minutes of a participant's time meaning that completing the three-part learning cycle of each unit takes about two hours.

NOTE: The eCALLMS project officially ended in August 2016. The work on these eWorkshops is continuing with the ICMEE project out of the University of Nebraska Lincoln. Please see <http://cehs.unl.edu/icmee/> for more information or to enroll.

