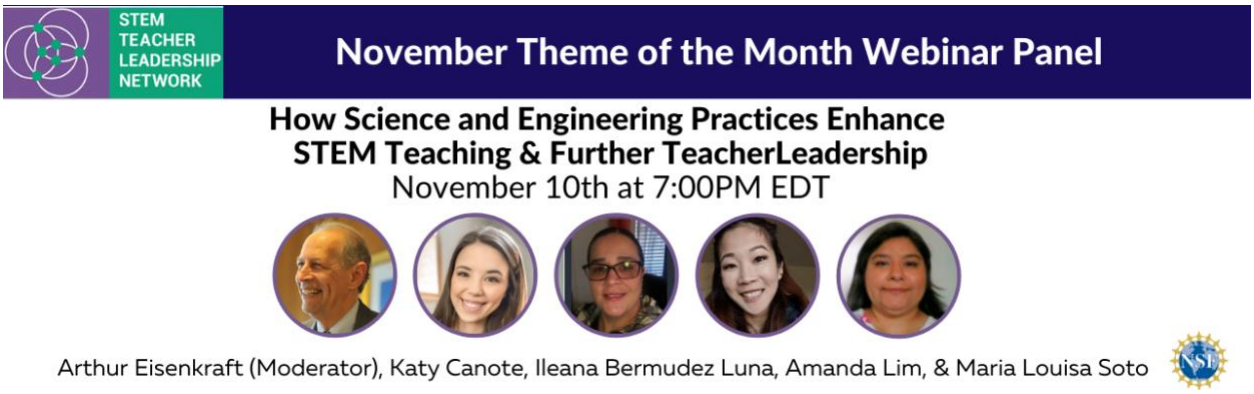

Resources Mentioned During Webinar and Webinar Chat

Resources

- Presentations Slides
- Article Katy refers to: https://stemtlnet.org/resources/scaffolding-stem-classrooms-integrate-key-workplace-skills-development-resources-active
- Article Ileana refers to: https://stemtlnet.org/resources/drive-inquiry-framework
- Article that Amanda refers to: https://stemtlnet.org/resources/modeling-toolkit-making-student-thinking-visible-public-representations
- Article that Maria Louisa refers to: https://stemtlnet.org/resources/engaging-students-guided-science-inquiry-discussions-elementary-teachers-oral-strategies

Webinar Chat

Kim Descoteaux : Hi all, Thanks for joining us! Please feel free to introduce yourselves in the chat. Let us know your location and your role!

Dean B : Hello everyone, my name is Dean Bodholdt and I'm from Prospect High School from Saratoga CA. I'm a biology teacher

Josie M : Josie Mardis TRIO SSS STEM advisor at Independence Community College

ratna n : Hello all! Dr. Ratna Narayan, UNT Dallas Science Educator

Erin G : Hi! I'm Erin in Boulder, CO. I am a STEM TOSA this year and middle school science teacher.

Kathy K : Hi everyone! Kathy from central New Jersey. I am the dept chair and the K-4 science specialist

Lynda H : Curriculum Consultant - elementary division for Suffern Central School District - Rockland County, New York

Sandra N : Sandra Nite, researcher and PD provider, Texas A&M

Julie R : Hello, I'm Julie Reed, year 2 @ Stanford's program and a 2nd grade teacher.

Adrian T : Hi everyone! Adrian Tamayo, 6th grade Math & Science teacher, San Francisco Unified School District

Piya P : Hello everyone, Piya Phalakhoj science teacher from Thailand.

Laura S : Hey! Laura Spanier - 6th grade math & science teacher with SFUSD.

Allan F : We are a c;lass of preservice teachers at the University of South Florida

Muhamad Y : Hi, I'm Yusup from Indonesia, a lecturer of physics education department

Cherdchai S : Hi all, Cherdchai from SEAMEO STEM-ED, Thailand.

Laura O : Hello! My name is Laura Ortiz, I am a pre-service teacher from East Stroudsburg University and hopefully I will be teaching Physics one day soon!

Kim Descoteaux : Please join the STEM Teacher Leadership Network at https://stemtlnet.org

John S : Hello, John here, attending from SEAMEO, Bangkok

Mark W : Hello everyone I am Mark from SEAMEO STEM ED, Bangkok

Arthur Eisenkraft : What is the secret sauce?

- the collaboration – working with other teachers from neighboring school districts
- the choice of a deep dive of 1 SEP over the course of a semester
- the merging of a research article and the SEP in the chosen course of study?
- the community (teachers with a common goal with the support of the DSC)
- learning through lesson observation and reflection

David V : Would it be possible to get a link to the article Katy is referring to?

Joni Falk : Please feel free to post questions for panelists as we go.

Kathy K : Arthur - I love the analogy of “secret sauce”! It makes me think of the artistic aspect of teaching that can be hard to describe.

Kim Descoteaux : David, here is the article - https://stemtlnet.org/resources/scaffolding-stem-classrooms-integrate-key-workplace-skills-development-resources-active

David V : Thank you!!

Kim Descoteaux : You can access the article Ileana is discussing here: https://stemtlnet.org/resources/drive-inquiry-framework

Joni Falk : If you have a question for Ileana, you can post it here.

John S : The lesson with Ileana’s HS chemistry students using the Drive framework seems to be a great way to engage students who are attending a virtual lesson.

Kathy K : Ileana- do you think this scaffold can be applied to lower grade levels?

David V : Does ADI come in during the variate phase of the DRIVE framework?

Kim Descoteaux : You can access the article that Amanda is discussing here: https://stemtlnet.org/resources/modeling-toolkit-making-student-thinking-visible-public-representations

Terry C : It provides a great way to make student thinking visible.

Julie R : Assisting ELs with visuals

Ileana Bermudez Luna : It helps students have a physical resource to understand a science phenomena.

Erin G : Modeling is a low-risk way to show current understanding and growth in understanding over time - sensemaking!

Dean B : By giving the students the ability to create a model they are able to look at a question or problem and they get to try and change up variables on their own

Kathy K : It provides a way for students to "show what you know"

Joni Falk : Models allows you to understand large, complex, phenomena

Laura S : Because so many natural phenomena can only be observed indirectly, so it's critical that they be able to make those connections

EDWARD R : Models help connect STEM.

John S : Engaging and manipulative models are very important in helping students understand how science works.

John S : An excellent way to engage MS students, Amanda!

Kim Descoteaux : The article that Maria Louisa is discussing can be accessed here: https://stemtlnet.org/resources/engaging-students-guided-science-inquiry-discussions-elementary-teachers-oral-strategies

Joni Falk : Post you open and closed ended questions for Maria 🙂

Dean B : Did you have sentence frames for your students when you worked on the questions? Did you have any English learners that started off with closed ended questions that moved over to open ended questions?

Wanda B : https://rightquestion.org/

Arthur Eisenkraft : https://forms.gle/Ndv4cXGzwdd2zuJAA

Maria Louisa Soto Soto : We did use frames later that we developed and recorded on an anchor chart.

Maria Louisa Soto Soto : I'm a bilingual teacher, so all of my students are English learners.

Erin G : https://drive.google.com/file/d/19MKCEVp20bNAUr1BXlmtfMd3B7FrzSNW/view?usp=sharing or https://docs.google.com/document/d/1kLI6LW58Zq5Ob_8MOSB3-R2LPrUZ4VYbnwmJ3f9crAY/edit?usp=sharing

Erin G : Those are two resources (in Spanish)!

Erin G : For scientific communication.

Kim Descoteaux : Thank you Erin!

John S : This questioning approach can probably be used effectively at all levels, including in higher education!

Kim Descoteaux : Questions for Breakout Groups: What could be modified to have this be successful in your situation?

a) Could this H-CCLS model work with your teachers/district?

b) What do you see as challenges and opportunities?

c) What changes would you make to the model and why?

Kim Descoteaux : https://bit.ly/SEPpdFeedback

Arthur Eisenkraft : https://bit.ly/SEPpdFeedback

Kim Descoteaux : Don't forget to continue the conversation on the STEM Teacher Leadership Network here: https://stemtlnet.org/theme/discussion/november2021-discussion