



2018 Learning Pathway Details

Crossing the “T” in STEM Classrooms

TGR Foundation

Supporting student learning outcomes through technology integration becomes challenging when choosing an effective tool among the growing pool of digital resources. Participants will re-examine the “T” in STEM and discuss the role that technology currently plays in both the classroom and real-world context. Using the SAMR (Substitution, Augmentation, Modification, Redefinition) model as a guide for reflection of effective technology integration, participants will engage in various uses of technology within a lesson that is aligned with the 5E instructional model (Engage, Explore, Explain, Elaborate, Evaluate). Accessible technology tools will be introduced and examined throughout the sessions that support each component of the 5E lessons. Participants will bring a current unit plan to be enhanced by technology through the application of the SAMR and 5E instructional models.

Block 1:

Participants will re-examine and discuss the role that technology plays in STEM instruction today, apply the 5E instructional model and SAMR Model to reflect on effective technology integration throughout the student learning process and engage in a lesson that utilizes web-based technology such as Goosechase, Animoto or Kahoot to support the Engage component of the 5E instructional model.

Block 2:

Participants will engage in a lesson that utilizes DIY microscopes/Foldscopes to support the Explore component of the 5E instructional model.

Block 3:

Participants will engage in a lesson that utilizes web-based technology such as Padlet, Prezi, TodaysMeet and EDpuzzle to support the Explain component of the 5E instructional model. They will also engage in a lesson that utilizes supplemental digital explorations such as PHET and TGR EDU: Explore to support the Elaborate component.

Block 4:

Participants will engage in a lesson that utilizes web-based tools such as Prezi, Socrative, Quizlet and Adobe Spark to support the Evaluate component of the 5E instructional model.

Block 5:

Participants will engage in a working session to receive support to integrate or modify technology in a current unit plan by utilizing the SAMR model and 5E instructional model as a guide. To seek further ideas for implementation, they will share out their technology integration plans in small groups.