



GOVERNOR'S STEM ADVISORY COUNCIL

Fierce and Fearless STEAM Teacher Training 2021-2022 STEM Scale-Up Program

Grade Levels: PreK-5, available in school and out of school

Information Sessions: See website for details

Website: <https://qilearning.ffst.pages.ontraport.net/>

Award Provides:

- Monthly Professional Development (5hrs/month)
- Live Zoom and pre-recorded webinars on science topics to help build scientific content knowledge
- Year-long online professional community to discuss reflections, insights and take-aways
- STEAM materials
- \$200 bi-monthly teaching supply stipend
- Subscription to Readorium, an interactive tutoring program
- Subscription to StarrMatica's leveled informational texts
- Subscription to the STEAM Café Library
- Subscription to the Distance Learning Toolkit
- STEM Challenge bundle by Feel-Good Teaching

Additional Cost(s) to Awardee In 2021-2022:

Participants may enroll to earn 3 grad credits for FFST from Drake University at their own expense.

Approximate Sustainability Cost After Award Period:

Training new educator: \$3,075 for training materials, annual subscription costs to StarrMatica, Readorium and STEAM Café (variable cost)

Program Summary:

Fierce and Fearless STEAM Teacher Training (FFST) participants will receive 3 monthly synchronous online PD sessions that focus on STEAM teaching methodology, mindset and science content grounded in social emotional learning (SEL) and culturally responsive pedagogy. Teachers apply these methodologies in the classroom using STEAM resources that situate the learning in real-world contexts and phenomena. These resources cover the disciplinary core ideas (DCIs) throughout the year. A private Facebook PD community provides mentoring, guidance, examples and inspiration to support teachers' classroom practices. We take a transdisciplinary approach to our skills-based PD, which emphasizes 21st century skills and their intersections with the NGSS, Common Core Mathematics and Literacy, Social Studies and Fine Arts standards. Culturally responsive pedagogy and practices within STEAM provides students with interactions that support their academic success.

FFST is a culmination of the work developed from Dr. Yen Verhoeven's thesis regarding online learning, her collaborations with the Ames Community School District in Ames, Iowa, and her PD workshops and videos in STEAM education and distance learning. This program also utilizes a unique culturally responsive SEL lens that Jennifer Terry brings from her work as a Culturally Responsive Teaching coach for school districts, businesses and organizations.

In addition to PD and resources, FFST participants receive: (a) two textbooks that support science and culturally responsive instruction; (b) a subscription to the interactive tutoring program, Readorium; (c) StarrMatica's leveled informational texts; (d) a STEAM resource library; and (e) a bundle of year-long STEM challenges from Feel-Good Teaching. FFST participants also receive free admission to STEM Con 2022 and any events hosted by Qi Learning.

What is Required to Implement the Program:

- Attendance required at each professional development session (3 hours/month).
- Monthly interactive responses and peer posts through the Facebook private group (1 hour/month).
- Monthly journal reflection and evaluation survey (1 hour/month).
- Participation in the spring STEM Scale-Up Evaluation is required.

Professional Development:

Synchronous virtual sessions for the first three Tuesdays of every month: July* 6, 13, 20; August 3, 10, 17; September 7, 14, 21; October 5, 12, 19; November 2, 9, 16; December 7, 14, 21; January* 4, 11, 18; February 1, 8, 15; March 1, 8, 15; April 5, 12, 19

*Weather and COVID permitting, July, and January dates will be swapped for a 5-hour in-person workshop on July 10 and January 29th.

Monthly sessions will be recorded for later viewing.

Week 1: 1-hour synchronous Zoom PD on teacher leadership, self-care, and STEAM mindset (live and recorded)

Week 2: 1-hour synchronous Zoom PD on distance learning and in-person instructional design and STEAM teaching methodology (live and recorded)

Week 3: 1-hour synchronous Zoom PD on a STEAM topic for teachers to gain scientific content knowledge (live and recorded)

Week 4: Facebook asynchronous discussions reflections, insights, and take-aways (2 hours of out-of-class time)

STEM Scale-Up Program Application Link: www.iowaSTEM.gov/Scale-Up-Application