

Outline of Planned Program

Each participant will engage in the one-year professional learning program, which has been designed to enable all 600 participants to:

- develop a deeper understanding of the targeted standards (within computer science or engineering, depending on the chosen pathway) and the kinds of learning experiences that can help their students achieve them,
- enhance participants understanding of computer science or engineering,
- enhance participants understanding of valuable instructional resources and digital tools,
- participate in the collaborative design of a learning experience for their students,
- engage in a supportive network to share and discuss the implementation of digitally-rich learning experiences in their classrooms with others, and
- create instructional materials that can be used by other teachers and will be introduced to practices that will help them support other teachers in their school.

For both Tier 1 and Tier 2 teachers, at the core of this one-year program is a 3-day summer institute specific to each pathway, designed to provide foundational knowledge and immersive experiences in Computer Science or Engineering, including collaborative planning time to create related digitally-rich lessons/classroom experiences. During the following school year, each participant will implement at least one of the lessons planned in the Summer Institute by November, and another by March, with some local support. Two face-to-face half-day professional learning sessions (to be held in December and April) will provide opportunities for participants to share and discuss classroom implementations, be introduced to new instructional resources, review relevant lessons created by previous groups, and have some additional supported collaborative planning time.

In addition, during the school year following the Summer Institute, Tier 2 teachers will participate in Professional Learning Communities (PLCs), each comprising of about 6 teachers with similar teaching assignments and led by a mentor provided by the project staff. The goal of each PLC is to promote and support the design, implementation and dissemination of additional high-quality lessons around the targeted standards, as well as receive some additional training. Each PLC will meet monthly with their mentor (either in person or in an online synchronous session) to collaborate in planning more digitally-rich lessons around the targeted standards, learn from each other's experiences, and prepare high-quality online instructional materials to enable other teachers to replicate their best lessons. Tier 2 teachers will also be expected to implement additional innovative lessons in their classrooms over the school year. Additional intensive professional learning opportunities will be provided to all Tier 2 teachers within each pathway in the form of two half-day professional development sessions (to be held in October and February) designed to foster a more in-depth understanding of targeted NYS standards, provide opportunities to share experiences and lessons learned across PLCs, and develop skills to support other teachers – including how to prepare useful instructional materials to be made accessible through the project website and other dissemination venues.

Tier 2 teachers will be encouraged to continue the established PLC (although without mentor support), and will provide support to other teachers in their schools as a way to build capacity in their schools. Additional local support from their school district and WFL BOCES will be provided to all program completers to ensure sustainability using local funds. The same program

will be repeated each of the five years for a new group of 120 teachers – with participants in later years able to take advantage of a growing collection of innovative lessons created by previous participants, as well as of the support of Tier 2 teachers in their schools.