Professional Development: *Problem-based Interdisciplinary STEM Learning*

The partnership will develop a comprehensive teacher professional development model to create a culture of creativity, communication, and collaboration in secondary classrooms.

- As active members of a professional learning community, **twenty-four middle and high school mathematics, science, language arts, resource, and career and technical education (CTE) teachers** will collaborate with each other in a week-long professional development workshop and explore research based instructional strategies and resources that facilitate the development of creativity, collaboration, and communication (reading, writing, and presentation) skills through interdisciplinary STEM learning activities utilizing the integration of robotics in the classroom.
- Teachers will also participate in **four webinars during the school year** with topics to include probeware integration, reading and writing integration, interdisciplinary learning, and online portfolios.
- In enhancing their pedagogical and technological knowledge, teachers will receive training on the **integration of problem-based learning strategies and assessment strategies, and the Hummingbird robotics kit with integration of other technologies** to meet the needs of diverse learners and inspire students.
- Teachers will receive **stipends and recertification points** for completing all activities including development and implementation of one unit of instruction per participant and presenting their digital portfolio with student artifacts in a Saturday summit in late Spring 2015.

Teacher commitment (all activities are required)

1. Five day summer workshop
2. Development of unit plan (problem based learning as pedagogy) and implementation in fall semester
3. Participation in four after-school webinars
4. Development of online portfolio that includes learning artifacts from webinars and unit plan
5. Saturday summit in Spring 2015

Incentives

1. Stipends: $500 after completion of summer workshop in 2015; $200 after completing 2 Fall webinars and teaching unit plan by January 2015; and $300 after participation in 2 Spring webinars, Spring summit 2015, and online portfolio completion
2. Camera for documenting instructional practices
3. Hummingbird Robotics Kit
4. Probeware
5. 60 Recertification Points

Teachers: A language arts and two other teachers (math, science, technology, engineering, CTE, art) to enroll from the same school

Dates: July 14 – 18, 2014 for Summer Workshop

Location for Summer Workshop: Longwood University (for one third of the teachers, travel, boarding and lodging will be provided if they have to drive more than 100 miles to workshop location)