**GRADE LEVELS:**
9-12

**EDUCATIONAL SETTING:**
Both in school or out of school

**Award Provides:**
- 1 Hummingbird Bit premium kit
- Full curriculum for robotics, game design and cyber defense.
- $120 educator stipend to attend the 4 hour workshop.
- Year-round support through email and online forums.
- Access to cybersecurity playground for cyber venue

**Additional Cost(s) to Awardee in 2023-2024:**
- Travel to the (optional) IT-Showcase
- Large clubs may want to purchase additional hummingbird kits.

**Approximate Sustainability Cost After Award Period:**
- All curriculum is free
- As clubs grow, they may want to purchase additional hummingbird kits.
- Travel to the (optional) IT-Showcase

**2023-2024 STEM Scale-Up Program Summary:**
Innovate-IT is an extracurricular program committed to preparing high school students for the new wave of skills needed to explore information technology. Innovate-IT uses inquiry-based learning and provides curriculum for club advisors to guide their students. High schools or other organizations that serve high school-aged students form an Innovate-IT club. The clubs use the program's curriculum and activities to guide students in any or all of these three venues: robotics, game design, and cyber defense (cybersecurity).

Throughout the school year, club advisors—who do not have to be content experts—guide their students through the milestones to complete the activities. Innovate-IT is fully staffed with content experts and administrative staff to support the clubs. Our program is modeled after an intramural or recreational sport. We want to give every student the opportunity to explore IT and to learn from it, not just the ones who already excel in mathematics and science in the classroom. We welcome students from not just their high school, but from other organizations like career centers, 4H clubs, boys and girls clubs, etc. Each of these groups serves different demographics of students, and we welcome all communities to participate in the program. Concluding the school year, clubs will have the opportunity to attend IT-Showcase, hosted at Iowa State University. IT-Showcase is the culminating event of Innovate-IT and is a celebration of technology, packed with networking opportunities, exhibits, and challenges.

Average length of time to implement the program: This self-paced program is designed to play out over a 9-month period. Clubs that have met in a formal class, once a week or once every two weeks, have been successful. Robotics is the most flexible module. Cybersecurity and game design require more time commitment to meaningfully implement.

**MATERIALS:** One Hummingbird Bit premium kit (serves 10 youth). Full curriculum for robotics, game design and cyber defense.

**TRAINING:** One statewide 4-hour blended workshop, delivered in-person with a live interactive virtual option.

**Requirements to Implement the Program:**
1.) Educator(s) must participate in workshops
2.) Educator(s) must participate in the STEM Council Scale-Up Educator Survey.
Website: https://www.cyio.iastate.edu/innovate-it/

Videos: https://youtu.be/g5lXFXVO1fg

Social Media: innovate_it_isu

Information Webinar: January 17, 2023, 3:30-4:30 PM CST

Registration https://www.cyio.iastate.edu/innovate-it-webinar/

Iowa Standards Alignment:
- Computer Science Standard 3A-AP-13
- Computer Science Standard HS-ETS1-4
- Computer Science Standard 3A-AP-10

Professional Development:
Duration: One statewide 4-hour blended workshop.
Date(s): Week of July 31-August 4, 2023
Location: Ames, Iowa, or join live via zoom.

Photos:

STEM Scale-Up Program Application Link: www.IowaSTEM.org/Scale-Up-Application