

## **STEAM Elementary Programming:**

During the 2018-2019 School year, the Riverview School District applied for the PA Smart Grant through the Pennsylvania Department of Labor & Industry. PA Smart provides funding to increase STEM and Computer Science education in elementary, middle, and high school classrooms. These grants will also provide professional development for teachers to include in their classroom.

Our elementary buildings received a Targeted Grant of \$35,000 which helps to meet the needs of school districts and their schools that currently have limited to no Computer Science / STEM offerings. These grants are meant to fund teams of educators (4 or more) who would like to be trained on ways to implement STEM / CS in their classrooms.

The grants will fund two phases of programming for our elementary STEM Program:

- Phase 1: We have sent and will continue to send teams of teachers in Grades 4, 5, and 6 each to training approved by the Pennsylvania Department of Education to learn STEAM/ CS principles appropriate to their respective grade levels and how to incorporate those principles into their curriculum. Professional development will be aligned to the CSTA standards approved by the State Board of Education. We received \$10,500 for training / substitute costs)
- Phase 2: Following the initial training, we were able to request additional funding (\$24,500 total) for product offerings to implement the computer science principles in 4th, 5th, and 6th classrooms and expand access to students.

Grade Level Programming at Verner and Tenth Street Elementary Schools:

Grade 4: We will be using comprehensive curricular resources which will enable teachers to help students practice computational thinking and develop 21st-century skills with Dash, Dot, and Cue robots. Teacher lesson plans will be designed to meet CSTA, ISTE-S, and Common Core State Standards, and are aligned to Code.org's Computer Science Fundamentals courses and Computer Science Discovery series.

Grade 5: We will be using Sam's Lab STEAM kits. These kits will be comprised of a variety of teaching materials, a flow-based coding app and an abundance of wireless electronic blocks and accessories. Teachers and students will use the SAM Blocks and the SAM Space app to build classroom projects and complete lesson plans.

Grade 6: We will be using Hummingbird Bit Robotic Kits. All Hummingbird Bit Robotics Kits Classroom Bundles include: Free classroom-tested and standards-aligned learning materials, such as programming tutorials, lesson plans, and printable student activities.