An Overview

Focus Area: Curriculum, Instruction and Assessment

Goal Statement 2:

By 2022 the district will develop and consistently implement a K-12 STEM (Science, Technology, Engineering, and Math) Program.

Year 1:

Collaboratively research, select and plan for a Pilot of an appropriate K-12 STEM program.

Ascertain budget implications for a K-12 STEM program and prepare detailed recommendations for use during budget consideration/cycle for fiscal year 2021

Launch (PreK-5)

Gateway (6-8)

High School (9-12)



PLTW Gateway



Launch (PreK-5)

Next Generation Science Standards,

Common Core State Standards for Math and English Language Arts, and other national and state standards.

10-hour modules are flexible and customizable: They can be implemented independently or in tandem with one another, at the grade level you want, at any time.

Life Science, Structure and Function, Light and Sound, Materials Science, Stability and Motion, & Energy

Gateway (6-8)

Coding and robotics, flight and space, and DNA and crime scene analysis, PLTW Gateway fuels students' passion for discovery.

Hands-on, collaborative problem solving focused on real-world challenges.

Design and modeling

Automation and Robotics, App Creators, Computer Science, Energy and the Environment, Flight and Space, Science and Technology, Magic of Electrons, Green Architecture, Medical Detectives.

High School (9-12)

- Computer Science
- Engineering
- Biomedical Science

Note: Seacoast School of Technology uses PLTW for pre-engineering.

High School (9-12)

- Computer Science
 - Computer Science Essentials
 - Computer Science Principles
 - Computer Science A
 - Cybersecurity

Cost:

Launch - All (could be pared down to CS to reduce costs)

Equipment and Supplies Subtotal \$51,581.58

Professional Development Subtotal \$500.00

Participation Fee Subtotal \$750.00

Total \$52,831.58

Gateway - 2 Modules

(App Creators and Design and Modeling

Equipment and Supplies Subtotal \$16,836.51

Professional Development Subtotal \$2,400.00

Participation Fee Subtotal \$750.00

Total \$19,986.51

School Systems can choose K-12 strands...

- Biomedical Science
- Computer Science
- Engineering

Addressing a complete strand to address K-12 is fiscally prudent and will ensure a coherent educational experience for all students across the school system.

Cost:

PLTW -

Equipment and Supplies Subtotal \$8,361.79
Professional Development Subtotal \$4,800.00
Participation Fee Subtotal \$2,000.00

Total \$15,161.79

(Two Modules Computer Science A and Computer Science Essentials)

Preliminary Recommendation

 Select the Computer Science strand to implement K-12 and phase it in over the next two to three years.

 This allows sufficient time for budgeting, obtaining the appropriate equipment, training of teachers and adjustments to the K-12 curriculum and course of studies.

Pilot of some modules at LRES can begin next year.