STEMworks – STEM Advisory Council's Approved STEM Program
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SEPUP

Program Overview

SEPUP has developed NSF-funded, research-based science education programs at the Lawrence Hall of Science at Berkeley since 1987. In his book Redesigning Education, Nobel prize winning physicist Kenneth G. Wilson calls SEPUP "…one of the best American examples of educational design". Changetheequation.org gives SEPUP their highest rating of "Accomplished". Our mission is to provide student-centered, issues-based science programs for middle and high school students. We provide virtually all materials and extensive embedded literacy and electronic supports to simplify the preparation required for hands-on investigative science. We want to reduce the preparatory burden for teachers so their time can be spent engaged with their students. Our NGSS edition provides deep support for true three-dimensional learning. Each Performance Expectation is a student performance culminating from a series of investigations where Disciplinary Core Ideas, Cross Cutting Concepts and Science and Engineering Practices are interwoven as students address an issue relevant to their lives.

Target Grades

SEPUP is designed for Grades 5-12

A Unique or Special Focus of the Program

SEPUP is Issues-Based Science where students conduct investigations, build expertise and propose solutions to issues they find relevant and meaningful.

The Program's Impact on Students

SEPUP enhances learning in all student groups through challenging and empowering them as a student-scientist solving a real world issue.

Specific Skills Students Will Learn

SEPUP is research-based science developed at the Lawrence Hall of Science at Berkeley. Our NGSS edition is truly 3 dimensional in its design, with all disciplinary core ideas developed throughout the 17 units. In every unit, connections are made through explicit connections drawn with Cross Cutting Concepts. SEPUP has always been rich in the Science and Engineering Practices. Skills developed will include Asking questions and defining problems, Developing and Using models, Planning and Carrying out investigations, Analyzing and Interpreting Data, Using Mathematics and Computational thinking, Constructing Explanations and Designing Solutions, Engaging in Argument from Evidence, and Obtaining, Evaluating and Communicating Information.

Resources Provided to Educators

A key part of SEPUP is virtually all materials for hands-on investigations are provided in an organized cart system. Literacy supports are embedded throughout. Online portals with text and student sheets in English and Spanish, simulations, web-links, teacher PowerPoints and videos of labs with handouts for absent students are included.

Website

lab-aids.com

Contact Information

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