JUNEAU ECONOMIC DEVELOPMENT COUNCIL IN PARTNERSHIP WITH THE US DEPARTMENT OF DEFENSE

SpringBoard

A program of the Juneau Economic Development Council

STEM Education

K-16 Science Technology Engineering and Math

STAFF

JEDC Executive Director
Brian Holst
bholst@jedc.org

SpringBoard Education Coordinator
Mary Hakala
907-523-2336
mhakala@jedc.org

SpringBoard Education Specialist
Rebecca Parks
907-523-2334
rparks@jedc.org

Why Stem....?

84% of U.S. middle school students surveyed would "rather clean their rooms, eat their vegetables, go to the dentist or take out the garbage than learn math and science."
-Raytheon Corporation survey

"We don't own the problem of American education in science and technology, but we have to be part of the solution. The technological superiority that our country enjoys today is something we inherited from those who invested in research and education in the 1960s and 1970s and it is something we now owe our children and our children's children."
-Dr. William S. Rees Jr., Deputy Under Secretary of Defense (Laboratories and Basic Sciences)

JEDC Juneau Economic Development Council

SpringBoard, a program of the Juneau Economic Development Council, is a statewide program to help transfer and commercialize U.S. Department of Defense (DoD) technology. To do this, SpringBoard uses the wealth of DoD research, inventions, patents and laboratory facilities and the entrepreneurship of Alaskan businesses. As an important component of this program, Springboard is launching an initiative to enhance science and math programs.

SpringBoard's Science, Technology, Engineering and Math (STEM) program goals are to increase the talent pool pursuing STEM careers. This is accomplished, first and foremost, by getting kids interested and excited about science and math, while building skills required to pursue STEM careers. SpringBoard staff works with Alaskan School Districts, individual schools and teachers to provide tools and supports needed to effectively and engagingly teach math and the sciences in K-16 classes in Alaska.

Enrichment programs

- **FIRST LEGO League**
- **FIRST Tech Challenge**
- **Science Olympiad**
- **Girls Rock Science**
- **GIS mapping/GPS field research**

Professional Development

- **Robotics** – Coaching clinics for elementary through high school teachers
- **Materials World Modules** (MWM) – Pre-engineering modules for middle and high school students developed with NSF funding and supported by the National Defense Education Program
- **CryoConn** – Cryosphere science training focusing on snow, ice, winter ecosystems and climate assessments in Alaska
- **SeaPerch** – Teacher workshops using underwater robotics to teach physical science concepts and engineering skills with extensions in life and marine science

Summer opportunities for students

- Robotics Workshops for elementary and middle school students
- UAF Alaska Summer Research Academy - Walrus Islands Game Sanctuary, Bristol Bay
- Design Discover Research Experiences at UAS (Field experiences at the NOAA Research Facility at Little Port Walter and in Glacier Bay National Park)
- H2O Power Camp (Hydro-Power for Middle School students)
- Video Game Programming & 3D Animation

Future Focus

- Build on successful start-ups
- STEM Alliance – Build partnerships and support for science education in Alaska.
- Professional development in specific STEM content areas
- Increase opportunities for students to actively engage in the practice of science.

612 West Willoughby, Juneau, Alaska 99801 phone: 907-523-2300 fax: 907-463-3929

Learn more at www.jedc.org!