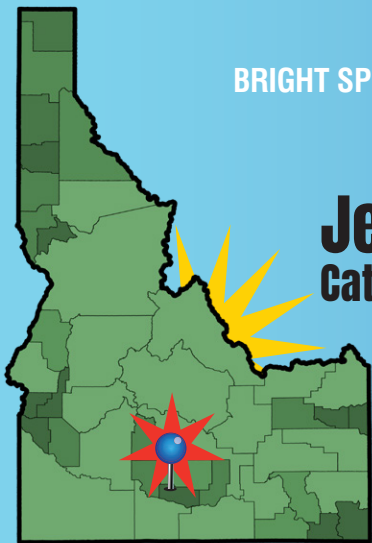


## BRIGHT SPOT STEM CAREERS IN SIGHT

### Jerome Catching the STEM wave



## ROBOTICS, VICTORY, AND CONNECTING STUDENTS TO STEM CAREERS

Idaho has one of the fastest-growing technology sectors in the entire nation. Nineteen of twenty “Hot Jobs” in Idaho require STEM skills. Idaho STEM Action Center partnerships work to empower students to develop critical skills so that they will be ready to catch the wave of momentum spreading across the state. Access to talent is one of the top challenges to growth reported by the region’s emerging industries, according to Idaho Technology Council’s annual “Knowledge Report”.

Students at Summit Elementary School in Jerome are on board with this movement. Through Idaho STEM Action Center grants, the regional Junior Botball Challenge (JBC) program was born and now the Summit Strong Robotics Team flexes its skills well beyond Jerome. JBC is an innovative approach to teaching all aspects of STEM—from applying math concepts by writing original computer code, to implementing the engineering design process for completing challenges using robots.

Team Summit Strong has represented Idaho at the Global Conference on Educational Robotics, yielding an astounding six trophies. For those students who traveled outside the Magic Valley for the first time in life, participation in a global robotics competition provided a new view of a STEM-fueled future. One student who participated later stated, “I want to be an aerospace engineer.” Another student wants to make their family’s dairy more efficient with coding and robotics.

Junior Botball Challenge participants have gained a love of coding. Several students have gone on to compete in Botball robotics competitions, a more advanced and highly competitive team opportunity, with eight teams statewide.

The program’s benefit is far beyond just the fun of an afterschool robotics club. Teacher Penni Aufderheide has noticed a sharp uptick in students’ math scores after joining JBC. Students scoring below-basic in standardized math tests now are at grade level or exemplary level math, demonstrating more confidence, social aptitude, critical thinking, and teamwork. “It’s because of the critical thinking skills they gain. If they can’t get it to run right, it won’t run. It makes them persevere!” says Penni emphatically. This is especially important because during competitions, only students are allowed in the “pit” area—no mentors or educators. Students resolve issues by themselves.

An independent research partnership with Boise State University reports that 100% of Idaho’s JBC learning environments have seen increased skills in problem solving, mathematical and scientific reasoning. Using high-level C programming language, students realize the importance of coding and developing conceptual understandings of a variety of content areas. Summit has cracked the code in teaching kids how to take the power of STEM into their own hands.



**STEM stands for Science, Technology, Engineering and Math. It’s in these subjects that students learn the skills of critical thinking, problem-solving and collaboration— skills that translate to success in many fields. The STEM Action Center is here to support this development and provide Idaho with the talent pipeline it needs for its economy to thrive. Idaho can generate a strong, STEM-competent and competitive workforce that will make us become a prime STEM business destination.**



## We build STEM through:

### EDUCATOR ACCESS

to STEM professional development throughout Idaho

**22,000**  
EDUCATOR  
INTERACTIONS

### WORKFORCE

development-focused partnerships with **INDUSTRY** and **UNIVERSITIES**

**8,000**  
STEM EDUCATION  
interactions through  
communities and  
businesses

### Student STEM COMPETITIONS

and camp support

**164,000**  
STUDENT  
INTERACTIONS

Today's students will be tomorrow's workforce, and the STEM Action Center has been created to develop the STEM-skilled talent that Idaho employers need.

### Our Partners



# Jerome

Catching the STEM wave



### TODAY'S EFFORTS.

### TOMORROW'S SUCCESSES.

Industry participation is essential for success, and we're here to help make that participation easier. We've created many ways for Idaho businesses to engage with STEM education. From mentoring and volunteering to donating and partnering, you can help move the economy forward by closing the gaps in Idaho's workforce. Let us help you help Idaho!

### LEARN MORE

To learn more about the STEM Action Center's strategies, success stories, and positive impacts in your community, email: [admin@stem.idaho.gov](mailto:admin@stem.idaho.gov).



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