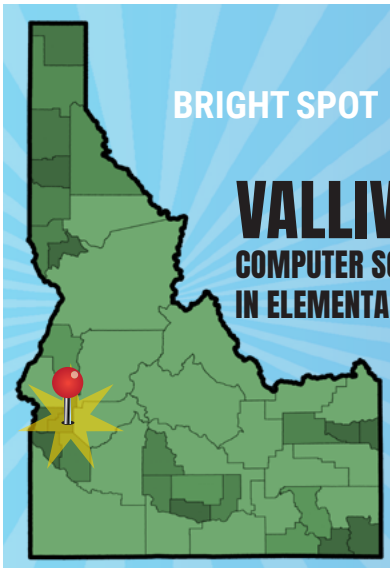
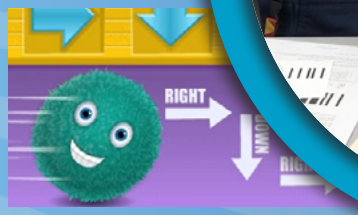
BRIGHT SPOT

VALLIVUE SCHOOL DISTRICT

COMPUTER SCIENCE PROGRAM TEACHES CODING IN ELEMENTARY AND MIDDLE SCHOOLS





Idaho's technology sector is one of the fastest growing in the nation, and 80% of jobs will require computer science (CS) skills in the near future.

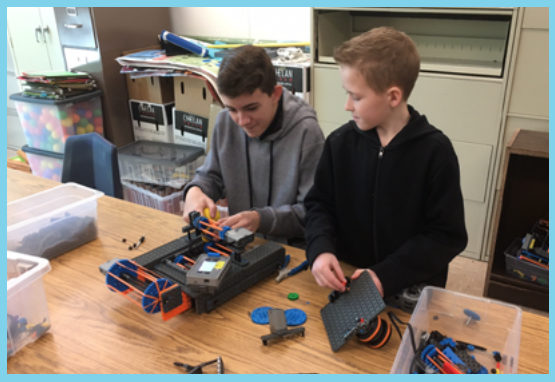
CS helps equip students with skills to succeed in any field!
From elementary through high school Vallivue School District is incorporating computer science into their curriculum.

BLOCK CODING HELPS ELEMENTARY STUDENTS DESIGN THEIR OWN WORLDS

K-5 students at West Canyon Elementary in the Vallivue School District are learning basic computer functions and Google applications that they will use throughout their school years and beyond as well as foundational coding skills. Educational assistant Sheila Miel has taught for three years in the computer lab and shared insights into student coding projects.

Starting in first grade, students are introduced to code through Kodable where they learn the process of placing blocks together that represent code and help a fluffy blue character get through a maze. In second and third grade, students move on to coding through Code.org's structured online program that teaches the basics of block coding in a way that students understand while giving them familiar storylines to follow. In the last quarter, third grade students work on lessons that allow them more free time at the end of each lesson to build projects using the skills they have learned. Fourth grade students move over to the online program CS First where they continue to learn block coding but have the freedom to make their own worlds and characters. In CS First, students work on projects that teach using video tutorials that focus on specific skills. Students continue using CS First through fourth and fifth grade and in the second semester fifth grade students work on a project where the end lesson is to design and build their own video game within CS First using block coding.

Along with classroom learning, fifth grade students can also join an advanced coding club where they learn debugging techniques and start to learn the basics of JavaScript through an online course on Khan Academy. The school purchased a classroom set of Edison bots that teaches coding using lights and sensors. These bots can be programmed to do simple tasks by running the bot over a bar code or complex tasks by using Edscratch which is an online program that works with the CS First coding design that fourth and fifth grade students are already using in the classroom. The simplicity and complexity of these bots gives all students the opportunity to work and grow with them. "Our students work so hard, and I am so lucky to be able to introduce them to the world of code in so many different ways", said Sheila.

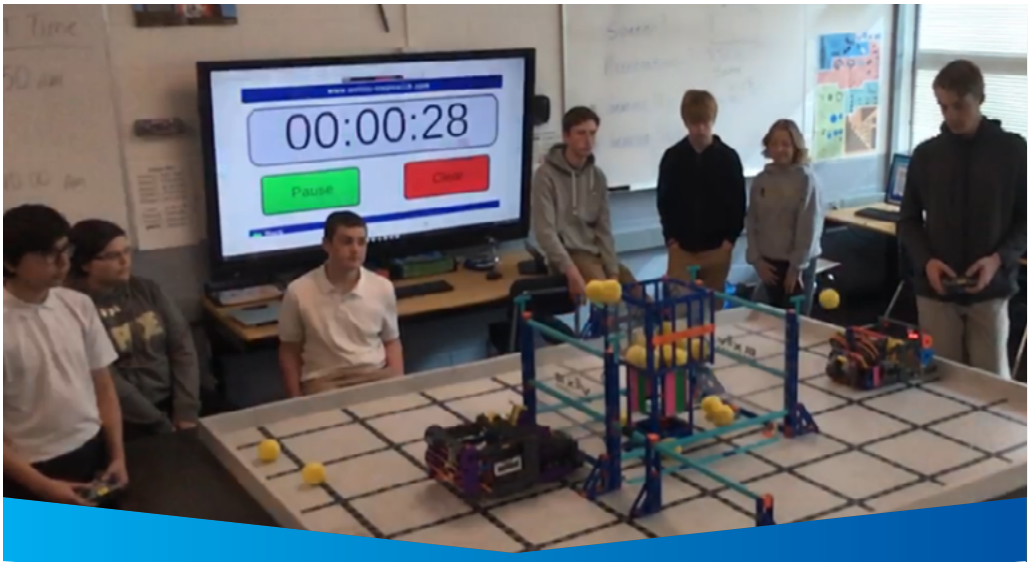


STEM is about *more* than Science, Technology, Engineering, and Math. It's about engaging with the world through creativity, collaboration, and innovation.

And STEM skills give Idahoans a competitive edge in the workplace; preparing them for high-paying, high-demand careers in agriculture, healthcare, computer science, and more.

STEM…Helping build a prosperous Idaho!

IDAHO STEM ACTION CENTER



PROJECT-BASED LEARNING HONES MIDDLE SCHOOL STUDENTS' DURABLE SKILLS FOR ROBOTICS

At Vallivue Middle School, Robotics and Engineering teacher Dan Graber values helping students connect STEM learning in a true hands-on setting. This project-based learning environment hones students' strategic, design, and teamwork skills, resulting in a diverse group of learners who are ready to construct with technology in fun, challenging ways.

In Mr. Graber's room, students routinely use knowledge from science and math classes to apply critical thinking skills to coding and robotics. As 6th graders, engineering students learn the fundamentals of what it is to engineer something, using STEM principles and using a research journal to document goals, notes and designs from the multiple labs they complete during the semester. In upper grade levels, students can join robotics classes, exposing STEM-focused minds to the complex field of robotics and technology. Working both individually and in teams, students set objectives and design robots from the ground up to compete in VEX robotics championships both locally and worldwide.

Select middle schoolers from Vallivue Middle School earned their way to an incredible opportunity at the VEX Robotics World Championship in Texas in May 2022! Student-led teams competed against a worldwide robotics community to celebrate their STEM accomplishments and compete in heart-pounding robotic matches.

Idaho STEM Action Center advances innovative opportunities for educators, students, communities, and industry to build a competitive Idaho workforce and economy through STEM and computer science education.

Building STEM through:

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to STEM professional development throughout Idaho.

WORKFORCE DEVELOPMENT
focused partnerships with industry and universities.

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and camp support.

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IDAHO STEM ACTION CENTER

802 W. Bannock St., Suite 900
Boise, Idaho 83702
Phone: (208) 332-1729

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