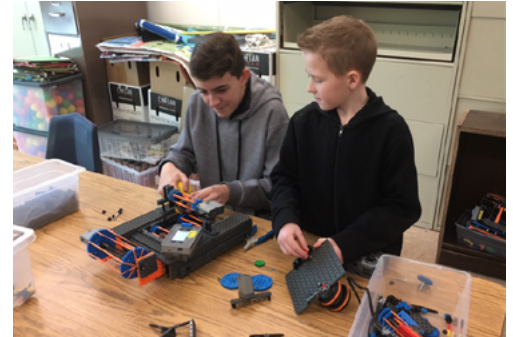




Vallivue School District

Computer Science Program teaches coding in elementary and middle schools

West Canyon Elementary School, Vallivue, Idaho



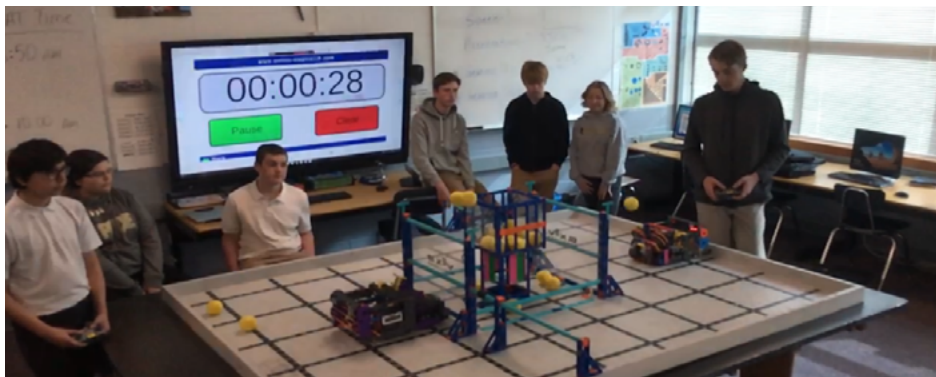
ELEMENTARY STUDENTS DESIGN THEIR OWN WORLDS USING BLOCK CODING

Sheila Miel has taught for three years in the computer lab at West Canyon Elementary in the Vallivue School District. Her job is to introduce K-5 students to basic computer functions, coding, and Google applications that students will use during their school years and throughout their lives.

Miel introduces first grade students to code and core programming concepts using kid-friendly, interactive, and engaging Kodable games and activities. Second and third grade students move on to courses that blend Code.org online and “unplugged” non-computer activities that teach computational thinking, problem solving, programming concepts and digital citizenship. Students create their own games, art, and digital stories.

Fourth and fifth grade students continue to develop their block coding skills through hands-on lessons aligned with student passions such as music and sound, art, and storytelling and have the freedom to create new worlds and interactive characters. Fifth grade students design and build their own video game using block coding.

“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 Miel.



Idaho's technology sector is one of the fastest growing in the nation, and **80% of jobs will require computer science (CS) skills by 2030.**

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.



STEM is 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!





PROJECT-BASED LEARNING BUILDS 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 integrate concepts from Science and Math classes to apply critical thinking skills around coding and robotics. As 6th graders, Engineering students learn the fundamentals of what it is to engineer something, using STEM principles and working with a research journal to document goals, notes, and designs from the experiments they complete during the semester. In upper grade levels, students join Robotics classes, exposing STEM-focused minds to the field of robotics and technology. Working both individually and in teams, students set objectives and design robots from the ground up to compete in robotics championships locally and worldwide.

In May 2022, a team of middle schoolers from Vallivue Middle School earned their way to an incredible opportunity at the VEX Robotics World Championship in Texas! 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.

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