



CASE STUDY: RAWLINS MIDDLE SCHOOL  
SMALL TOWN + BIG VISION =  
PREPARED STUDENTS FOR  
STEM CAREERS



## THE SITUATION

Rawlins Middle School in Rawlins, WY is located nearly two hours from a larger city; however, with the the region's plentiful natural resources, the future is bright for the nearly 400 middle schoolers who want to stay local and find a career in STEM.

Four years ago, the school's STEM program consisted of a single computer science class, but to ensure their students were prepared for future jobs, the team at Rawlins Middle School began searching for a more robust, standards-aligned STEM-education solution.



## THE SOLUTION: SMARTLAB LEARNING

After researching what other schools were doing in STEM, the school's principal was introduced to SmartLab Learning. "When he stepped into a SmartLab HQ, he knew this was what our school

needed," said Tammy Partlow, STEM Facilitator. "We want to give our kids opportunities to pursue careers locally or enroll in a nearby university. I truly feel confident that the students coming out of our SmartLab HQ will thrive in STEM careers here," she said.

In addition to serving students, the SmartLab HQ also attracted talented teachers, like Partlow, to the area. "When I saw the job description, it checked off everything I love about teaching and my passion for learning. In this room, it's all about discovery.

"Becoming a STEM Facilitator was a perfect fit for me because I never taught math like a traditional math teacher. I've always been creative and visual, so that part of me always longed for something more than just math," Partlow explained.

Prior to coming to Rawlins Middle School, Partlow had just finished writing the intervention and seventh- and eighth-grade math

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curriculum at her previous school and knew how much work it took to develop lesson plans.

As she entered her new role as STEM Facilitator, she worried that she'd need to write more curriculum; however, those concerns were alleviated when she learned that SmartLab Learning includes more than 650 student-led STEM activities in more than 100 topic areas.

These Project Starters provide teachers with innovative, student-led experiences that allow students to explore a wide range of projects and challenge levels.

The breadth of the curriculum allows Partlow to focus on being a facilitator rather than on curriculum development, maintenance, and alignment.

"If this was a 'do-it yourself' type of school, I wouldn't be able to do that. DIY teachers have my sympathy.

"If I had to go out and purchase different things and design and align the curriculum, I don't think we would have the student engagement and excitement we do today. It takes a lot of energy to develop curriculum, and I feel the projects would be limited if I had to develop them on my own.

"A SmartLab HQ brings everything together. The SmartLab Learning team of curriculum writers and trainers bring it together to make STEM more cohesive. I don't get bogged down with trying to write the curriculum and make sure everything is right," she said.

In addition to the curriculum, SmartLab Learning includes professional development that helps teachers transition to being facilitators.

"In the beginning, you aren't really sure how this is all going to work and what's required to be successful. As a STEM Facilitator, you have to be willing to not know all the answers. You need to understand that you will always be a learner yourself," Partlow said.

When school started, her students were working on 12 different projects at once. "I wasn't sure how I was going to be able to keep up; however, I quickly realized that when students teach me something instead of the reverse, it's better for them because they are digging in and figuring things out on their own," she explains.

This learning style is helping students achieve more than anyone expected. "This past year, students participated in a competition in Casper, WY for the second year in a row. Both years the RMS teams have placed third out of nearly 60 teams for mechanical design and for Core Values. The team never ceases to amaze me!

"This year, we have almost 30 kids who have been coming to our robotics meetings and participating in the after-school program. I see this program going further and further because the kids love robotics, and they want to be involved," Partlow said.

#### **MORE THAN STEM IN A SMARTLAB HQ**

"The best thing about this class is that it reaches beyond clique-ish barriers and invites all types of students to participate in challenging and creative projects.

"When I first started, I had a student who stayed by himself and didn't seem to blend into any group. Within this same class was another boy who was gifted in circuitry. I gave this second student freedom to go as far as he could with that technology. The boy who was sort-of a loner, saw what the gifted child was doing and got pulled into his projects. The SmartLab HQ opened the door for the introverted child to feel like he belonged to our class.

"He wanted to see what was going to happen next and became engaged with the other kids in the room. However, when the bell rang, he would go off on his own again," she said.

This experience showed Partlow that a SmartLab HQ is the invitation for those who don't feel like they fit in with the other kids at school.

"In a SmartLab HQ, everyone comes together and all of those cliques go away. The engineer kids need the art kids—we all need



each other in this room.

"I've seen girls come together and do something they would never do in a traditional classroom because it is more of an open space where they feel like they can be themselves. They forget that they

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belong to any sort of group and all of a sudden, they help one another. I love that part about being in this room.

"A SmartLab HQ breaks down those silos. As adults, we do this in the workplace. So, to be able to see these skills in the middle school is awesome," she said.

As for the students, they love participating in projects. "They jump right in. In the beginning, I helped them get familiar with the technology, but once that happened I don't have to give them a lot of instruction.

"Now I have student experts all over the place, and they step up and become leaders for others, too," she said.

Partlow credits SmartLab Learning with making a big impact on students' engagement levels. The pedagogical approach helps her provide a space where barriers leave and kids can be kids.

"And in today's world, they need that," she said. "They have so much stress, and I really feel like with a SmartLab HQ, I can help change lives, and that's why I became a teacher."

47%

Percentage of students achieving proficiency in math and reading/ language arts

44%

Percentage of students on free or reduced lunch

13:1

Student-teacher ratio

## CHALLENGES FACING RAWLINS MIDDLE SCHOOL

- Closest city is nearly two hours away, making access to qualified teachers, STEM resources, and expertise difficult.
- Teachers struggle to engage every type of learner and to increase student achievement scores from 37% in 2018–2019 school year.
- Students weren't being introduced to STEM subjects and the local careers in natural oil and gas.

