

Incorporating SAM Labs into Elementary Science Education Shows Results

Blaine Elementary, part of the vibrant [Blaine School District](#) in Northwestern Washington, embarked on a journey to revitalize its STEAM curriculum at the start of the 23-24 school year. With a limited amount of engaging STEAM resources and the need to captivate a diverse student body, the school identified SAM Labs as a transformative solution. This initiative aimed to consistently provide interactive STEAM learning experiences, turning every science block into an opportunity for exploration and creativity.

The Catalyst for Change: Embracing SAM Labs

The pivot towards incorporating SAM Labs into the curriculum was inspired by Superintendent, Christopher Granger's, discovery at a conference, bringing this opportunity to Science Teacher Lindsey Jackson's attention. With the introduction of [STEAM Classroom Kits](#) and [Maker Kits](#), the objectives were clear:

- To foster a hands-on, engaging STEAM curriculum for all students.
- To heighten student interest and proficiency in STEAM subjects, especially Science.
- To encourage critical thinking and creativity through interactive learning.

The decision was driven by a shared vision to enhance Blaine Elementary's STEAM program.

Transforming Student Engagement and Performance

Following SAM Labs' implementation, a noticeable shift occurred in student engagement and understanding of concepts such as input-output systems. Lindsey noted the change in student familiarity and comprehension:

"Before SAM Labs, about half of the students were familiar with an input-output system. After the unit, almost everyone could not only define it but also give real-world examples. If you can lock in what input output means, we can do anything in this unit."

This improvement reflects the effective transition from theoretical understanding to practical application, engaging students in a manner that was both exciting and informative. Lindsey observed, "So even that - just a simple input-output - was really exciting for them!"

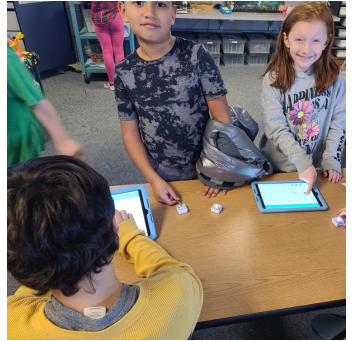
A Teacher's Perspective: Navigating Challenges

Lindsey Jackson highlighted the profound impact of SAM Labs on addressing teacher challenges, emphasizing the reduction in preparation time and the high quality resources provided:

"The pain points for me are always materials and prep, and you guys had all of it. The lessons and the slides being prepped was amazing...It saved me 1-3 hours per lesson."

Besides the huge amount of time saved, Lindsey found SAM Labs' Content Hub to be of great value:

"I've spent years making slideshows and trying to get my lesson plans all figured out. Then SAM Labs has this beautiful package of slides that have explanations and lesson plans that have materials."



Students programmed a pressure sensor light utilizing SAM Labs.

Quantitative and Qualitative Leaps in Learning

The student data shared paints a vivid picture of SAM Labs' impact on learning outcomes. Initially, only half of third grade students could grasp and apply the concept of input-output systems ([1B-CS-01 CSTA standard](#)). **After integrating SAM Labs into the curriculum, 90% of third graders understood and could apply this concept! Similar leaps were seen in fourth grade; where the 70% of students who were meeting or approaching this standard before SAM Labs integration expanded to 90% of students after integration, and in fifth grade, where the 75% of students who were meeting or approaching the standard before SAM Labs grew to 90% after.**

Lindsey also found that SAM Labs also supported English learners and struggling readers:

"Having the pictures and the option to physically click and drag in SAM Labs was a way to break those barriers down. If you're a struggling reader, you don't have to read this, you can look at the picture and it matches the physical block. I have a lot of kids that shined because that hurdle was gone."

Conclusion: Shaping the Future of Education at Blaine Elementary

Blaine Elementary's journey with SAM Labs has proven to be a beacon of success in integrating technology into education by enhancing student interest and performance in STEAM subjects. Lindsey Jackson's experience is an inspiring example of how embracing change and leveraging innovative tools can profoundly impact students' experience.

Lindsey summarizes the transformative power of SAM Labs, "Everyone is acknowledging that our children and their interests are changing and finding a curriculum that embraces that change but makes it positive and still learning-focused is amazing."

Through this initiative, Blaine Elementary has set a benchmark for future-focused education, demonstrating the profound effect of integrating innovative solutions like SAM Labs on both student engagement and learning outcomes.

SAM Labs can support you in tracking impactful data around CSTA and NGSS standards. Reach out to support@samlabs.com with your questions.