

On the Farm STEM

Equipped educators to bring authentic agricultural phenomena into the classroom, strengthening student engagement and real-world connections.

Need and Opportunity

Science educators are increasingly expected to teach using real-world phenomena, but many struggle to meaningfully connect their instruction to the agricultural systems that shape students' lives. Despite broad awareness of the Next Generation Science Standards (NGSS), educators often lack the resources, confidence, and contextual knowledge to integrate agriculture authentically into their classrooms. This disconnect risks diminishing students' understanding of the relevance of science to food systems, sustainability, and rural communities.



Vivayic in Action

Through a long-standing partnership with the American Farm Bureau Foundation for Agriculture (AFBFA), Vivayic co-designed and facilitated the On the Farm STEM professional learning program. This multi-part experience was built around immersive, agriculture-focused engagement and real-time curriculum development.

We used our facilitation expertise to bridge the world of agricultural producers and science educators—ensuring that learning experiences honored both accuracy and pedagogy.

OUR APPROACH

- Pre-Event Webinars to frame the relevance of agriculture and introduce dairy science phenomena.
- A 4-day immersive farm experience where educators engaged directly with dairy operations and contextualized agricultural science.
- A Post-Immersive Design Session to help educators apply what they learned into NGSS-aligned instructional materials grounded in local phenomena.

Results

Educators who participated left the program with a deeper understanding of agriculture as a science-rich system, as well as custom NGSS-aligned instructional units grounded in agriculturally-based phenomena. Participants reported an increased confidence in using phenomena-based instruction and connecting students

- Custom NGSS-aligned instructional units grounded in agriculturally-based phenomena.
- Increased confidence in using phenomena-based instruction and connecting students to community-relevant science.
- The pathway empowered educators to design learning experiences that were not only standards-aligned, but also localized, equitable, and authentically rooted in place.

THE IMPACT

- Educators gained new tools and mindsets to lead 3D science instruction that resonates with their students.
- Students experienced richer science learning, rooted in real agricultural systems that impact their daily lives.
- Communities benefited from stronger connections between local food systems and science education.



**On The Farm
STEM®**

The On the Farm STEM initiative continues to scale through regional implementation, aligned with AFBFA's mission to improve agricultural literacy. Vivayic remains a design and facilitation partner, bringing the experience to new states and educator networks each year.

Schedule a Discovery Call

Let's work together to design and deliver a tailored learning experience that helps meet your strategic needs.

SCHEDULE NOW