Module 1: Introduction of the Learning Environments

1	Title Slide	Welcome to the first module of the Science and Agriculture Academy series: Introduction of Learning Environments. To advance to the next slide, select the "forward" arrow located on the play bar at the bottom of your screen.
2	Introduction	In this module, we will be identifying the four perspectives on learning environments as outlined by the National Research Council and discussing the importance of aligning the four perspectives on learning environments in your science-based classroom.
3	Designing Learning Environments	Throughout the module series, we will be examining the characteristics and perspective of four learning environments: learner-centered, knowledge-centered, assessment-centered, and community-centered. Let's first analyze a visual representation of what the four perspectives of learning environments look like in a classroom. Notice the three perspectives linked together in the community-centered learning environment. Before moving on, let's take just a moment to reflect on this visual and jot down what we think this model represents.
4	Learner-centered environments	The first learning environment we will explore in this series is learner-centered. Learner-centered environments require teachers to pay closer attention to the knowledge, skills, and attitudes students bring to the classroom, which can be attributed to a student's cultural background or prior experiences. Learner-centered environments encourage students to use their past experiences and knowledge to create new knowledge.
5	Knowledge-centered environments	The second learning environment we will explore is knowledge-centered. Knowledge-centered environments provide an emphasis in really knowing what content is taught in the classroom, why it is taught, and what competency or mastery looks like for that subject area. Knowledge centered experiences engage students in the construction of knowledge – by organizing and relating back to prior knowledge. In addition to teaching new material, knowledge-centered classrooms connect what students already know to new material.
6	Assessment-centered environments	Assessment-centered environments occur third in the module series. Assessment-centered environments allow teachers to grasp students' preconceptions through the use of frequent and immediate formative assessments and purposeful summative assessments in the pursuit of mastering learning outcomes.
7	Community-centered environments	The last perspective in the module series is the community-centered learning environment. Referring back to the visual shown at the beginning of the module: why did you think the three environments were linked together among the community-centered environment? Community-centered environments can be the context in which learning takes place for students. A "community" can be representative of a class, a school system, or the local businesses, industries, and residents that

		surround your school. A community-centered environment is a place or state in which students feel comfortable taking risks, making mistakes, and being themselves. Using the community-centered perspective fully in your classroom creates connections to the real world outside of school
8	Alignment of Learning Environments	To provide an optimal learning environment for student learning, all four perspectives on learning environments need to be aligned. Alignment between knowledge-centered and assessment-centered is imperative, as assessments must be designed to evaluate student's growth in knowledge and skills. Likewise, getting to understand students through a learner-centered perspective is important when considering the content being taught and the way the assessments are designed. These perspectives combined are arranged among the values and learning goals of the community in which the learning takes place.
9	Alignment of Learning Environments	The "big idea" of the alignment of learning environments is that together they will form a productive classroom in which: • Learning begins with and builds upon existing knowledge • Frequent feedback is given • Metacognitive skills are developed in students • Cultural diversity is acknowledged • Course content is linked to the real world • Making mistakes is acceptable • Students have choices in what is being learned
10	Review	As we come to a close, let's consider all we have covered so far. We first identified the four perspectives on learning environments and gave a brief synopsis of each. We then explored the importance of aligning the four perspectives on learning environments in science-based classrooms. In the accompanying modules, we will further explore each perspective on learning environments along with strategies to implement them in your science and agriculture classrooms.
11	Sources	Lehrer, R., and L. Shumow. 1997 Aligning the construction zones of parents and teachers for mathematics reform. Cognition and Instruction 15:41-83. National Research Council. (2000). *How people learn: Brain mind, experience, and school.* Washington, D.C.: The National Academic Press. On What is Your Classroom Centered? (2014). Retrieved from https://www.fandm.edu/faculty-center/faculty-center-stories/2014/10/07/on-what-is-your-classroom-centered-students-students-knowledge-assessment-community
12	Credits	Thank you for viewing this module.