



Supervised Agricultural Experience

# SAE FOR ALL

## TEACHER GUIDE

*Real Learning for a Real Future*

A Project by  
The National Council for Agricultural Education

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# Welcome to the SAE for All Teacher Guide

In agricultural education, learning has never started and stopped at the classroom door! From its beginning in the early 1900s, agricultural education has always incorporated an authentic work-based or experiential component. Supervised Agricultural Experience or SAE provides your students individualized opportunities to learn and develop real-world skills outside of the classroom beyond the school day.

This guide is meant to supplement the SAE for All Student Guide and provide you practical guidance, tools and examples to do the following:

1. Help students understand what an SAE is, the value it provides and how to get started.
2. Ensure all students enrolled in your agricultural education courses have an SAE.
3. Connect SAE to your school's priorities.
4. Provide SAE supervision to all your students.
5. Integrate SAE into your classroom grading system.

In this guide, you will find answers to the most pressing teacher questions when it comes to providing high-quality SAEs to your students. You will find solutions to the following:

## Supervising Large Numbers of Student SAEs

For most teachers, an on-site visit to every student, every year is no longer realistic. Tips for a new approach to supervising SAEs are provided in the [How Does an SAE Work?](#) section.

## Involving “All” Students

Many teachers struggle with students who can't decide on an SAE and the “drop-in” students who join the program for a semester but may not return until two semesters later. The [Foundational SAE](#) provides options for these students to have a short-term SAE and may entice them to choose to continue in the program.

## Building Administrative Support

Many administrators do not understand or value SAEs. This provides a constant struggle for instructors that have extended contracts for supervising and supporting quality SAEs. The [What is an SAE?](#) section will provide ideas for incorporating SAEs into your school's education agenda and communicating that connection. This way, your administration doesn't just value SAEs but sees them as important for all students.

## Going Beyond FFA Awards and Degrees

Over the years, agricultural education teachers have become more reliant on FFA proficiency award areas and degree requirements to frame their approach to SAEs. Because there are more than 300 diverse careers in agriculture, it is possible that students can engage in a suitable SAE for which no FFA outcome may currently be available. SAEs should not be defined by FFA awards or recognition programs. The [What are the SAE Options?](#) section highlights these new opportunities for students.

# What is an SAE?

America's agriculture industry and education system has changed dramatically since Rufus Stimson launched the first official SAE, called a "Home Project" around 1910. It is unlikely that he could have imagined agricultural education programs with 25-30 students per class for seven periods a day, where most students do not live on a farm or ranch.

The diversity of students served by today's programs requires a new definition and approach to SAE, one that aligns SAE with 21st Century learners. Changes include new types of SAEs, a new approach to supervision, and a focus on measurable learning outcomes rather than only dollars earned or hours documented. However, the fundamentals remain the same, an SAE must be supervised, related to agriculture and provide a rich and meaningful work-based or experiential learning experience.

## A New Definition

Supervised Agricultural Experience (SAE) is a **student-led, instructor supervised, work-based learning experience** that results in measurable outcomes within a predefined, agreed upon set of **Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices** aligned to a career plan of study.

## BREAKING DOWN THE DEFINITION

See how this definition comes to life for students on page 2 of the *SAE for All Student Guide*.

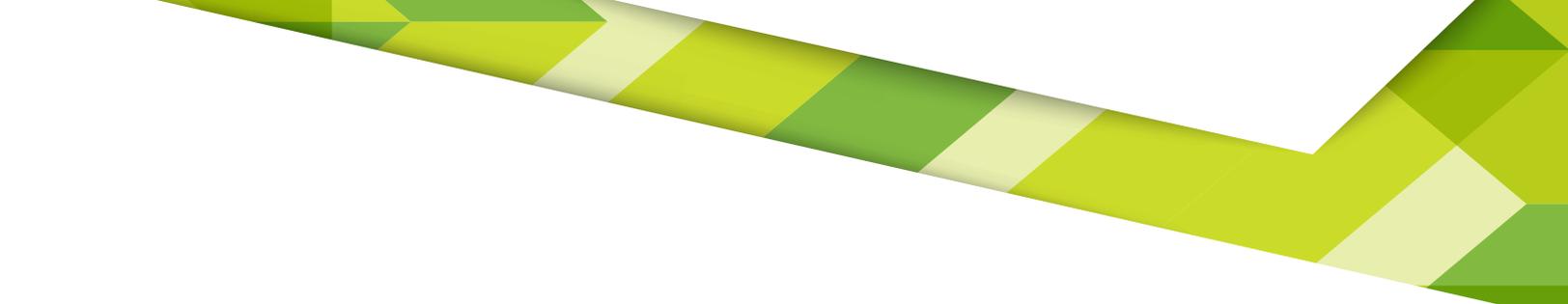
**What is an SAE?**

Supervised Agricultural Experience (SAE) is a **student-led, instructor-supervised, work-based learning experience** that results in **measurable outcomes** within a predefined, agreed upon set of **Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices** aligned to your **Career Plan** of study.

**HERE'S WHAT THAT DEFINITION MEANS FOR YOU.**

- Aligned to Your Career Plan**  
SAEs are designed to grow and modify as you grow and develop your skills and identify new interests that may affect your Career Plan. The end goal of an SAE is that you are career-ready, no matter what path you take to get there!
- Student-Led**  
You will be the primary decision maker throughout your SAE. Many options may be shared with you by your instructor and other supporting adults, but you ultimately have control.
- Connected to Agriculture**  
No matter what type of SAE you choose, it needs to be agriculturally-related. You can choose to experience any of the AFNR career pathways:  
Agriculture Systems, Animal Systems, Biotechnology Systems, Career Ready Practices, Environmental Systems, Food Products and Processing Systems, Natural Resources Systems, Plant Systems, Power Structural and Technical Systems.
- Instructor Supervised**  
Your agricultural education instructor will help guide and foster growth within your SAE as needed. They serve as your SAE mentor.
- Measurable**  
Because SAEs are connected to agriculturally-based knowledge and skills your growth can be measured as a graded component of your agricultural coursework. Your SAE experience may also be considered for high school graduation credits.
- Work-Based Learning**  
Depending on the type of SAE you select, your work-based experience could be in or out of school. Specific definitions of each SAE work-based category can be found on pages 9-20 of this guide.

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Teachers provide **SUPERVISION** of and guidance for the student's program while engaging other necessary partners such as parents and/or employers. The teacher should also provide on-site instruction when and where appropriate but be able to use other methods — social media, computer technology, written documentation and group meetings — to provide supervision and guidance.

While it is not necessary that an SAE take place on a farm, ranch or other private **AGRICULTURAL** enterprise, the experience should correlate with classroom instruction and a student's career exploration, interest and planning within one of the recognized AFNR career pathways.

Agricultural educators already provide **EXPERIENTIAL** learning on a daily basis. What makes the SAE component different is that the activity ties back to some level of career planning, is student- rather than teacher-managed, and takes place in a real-world environment or simulated workplace environment (i.e., virtual program or school lab/greenhouse/farm). SAEs may even occur on the school campus or during the school day.

Now more than ever, SAEs position agricultural education programs to be leaders in their school district in the STEM and College and Career Ready movement. While an administrator will not immediately recognize the name, “Supervised Agricultural Experience,” they will recognize the terms “work-based” and “experiential learning.” They will also value measurable outcomes and career plans. These are the components of the SAE program that will ring in the ears of school administrators at the middle and high school levels. When you share the **SAE Roadmap** with your administrators make sure to highlight the following language.

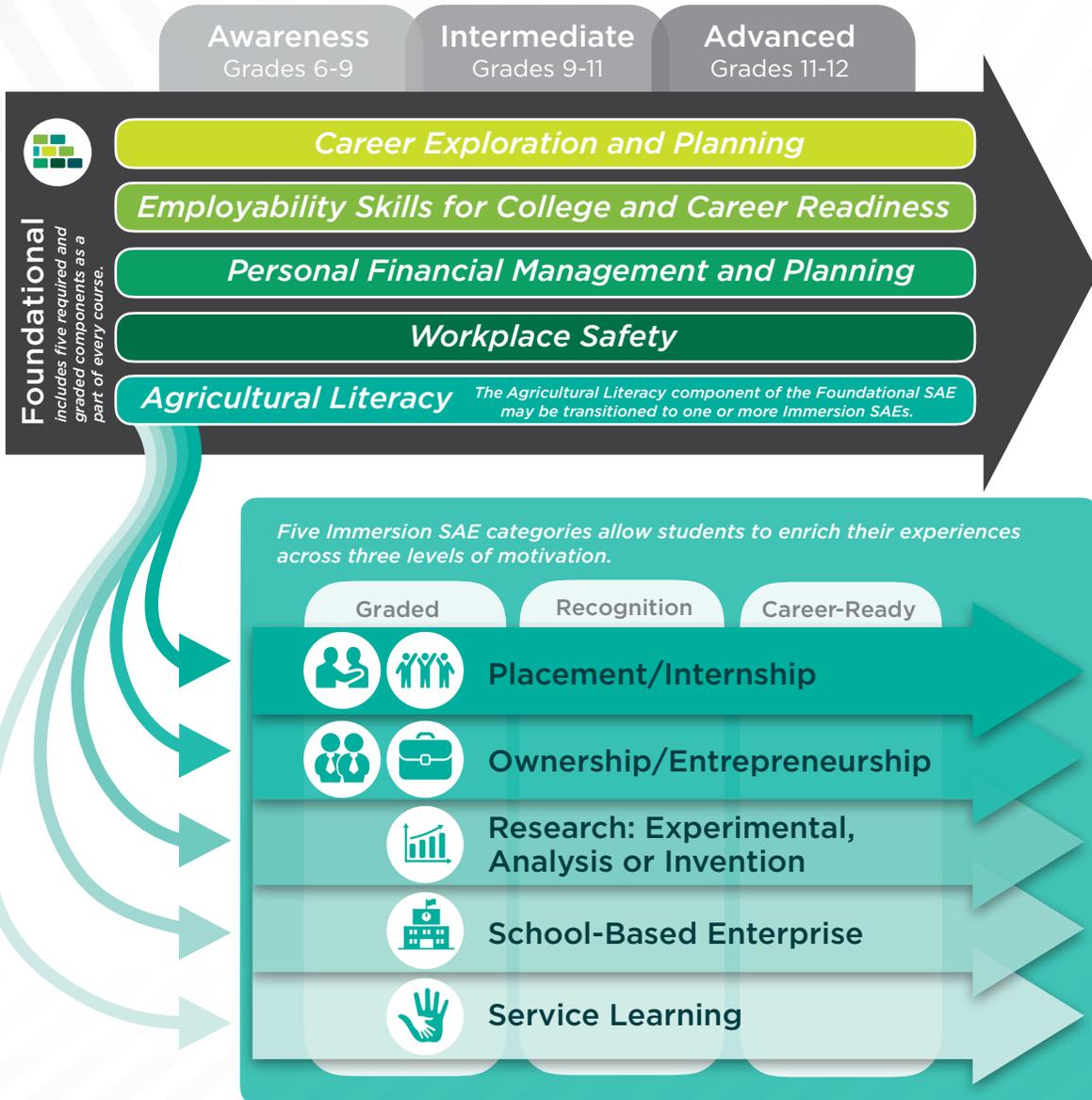
## SAE is a...

- career exploration and planning system for all students.
- student-led, teacher-supervised path to college and career readiness.
- tool for measuring student progress toward college and career readiness.
- method for authentically enhancing the high school experience.
- small business incubator for young entrepreneurs.
- path to connect students to STEM careers and mentors.
- critical component of a comprehensive Career and Technical Education (CTE) program.

# SAE Student Roadmap



Students enter agricultural education.



# How Does an SAE Work?

## Start with a Foundational SAE

No matter where a student enters an AFNR program of study, it is important that they start a Foundational SAE in the first semester of enrollment. The **SAE Roadmap** provides a clear visual to help students, parents and administrators see that each student's Foundational SAE continues throughout their participation in agricultural education. It also shows how students can enrich the Agricultural Literacy component of the Foundational SAE by adding one or more Immersion SAEs.

The Foundational SAE is a great fit for those students who take only one course in your program or come in and out throughout their high school experience. Using the Foundational SAE activities provided in the Appendix, these students can grow in their agricultural experience and advance toward college and career readiness. You may even find that through intentional career exploration and planning more students will see the value in your program's sequence and increase your retention rate.

## GROWING SAES OVER TIME

See how students will deepen their learning by expanding their Foundational SAE to include one or more Immersion SAE's on page 22 of the *SAE for All Student Guide*.

## Expand to Immersion SAE

When students are ready to enrich their agricultural education experience with an Immersion SAE, you will need to be ready to point students in the right direction. Remember that you do not need to be the expert on all things. From placement opportunities to research ideas, there are support structures in your school and community that are willing and able to assist.

Tap into the local workforce center for summer job programs, Small Business Administration (SBA) office for assistance on creating business plans and other entrepreneurship resources, civic groups for service learning opportunities and your school's science department for research ideas. Each of these groups will have trained professionals to assist and mentor or supervise a student.



### ***A Note About Workplace Safety***

As students move to an Immersion SAE it is also important to make sure that they have completed the necessary safety preparation through their Foundational SAE. All student SAE programs should conform to national and state youth labor standards and students should attain all appropriate recognized safety and/or OSHA certifications needed to perform necessary job functions included within the SAE.

The **Safety in Agriculture for Youth (SAY)** (<http://articles.extension.org/pages/70004/safety-in-agriculture-for-youth>) is a comprehensive resource for safety, risk assessments, SAE safety checklists, student safety certifications and instructional resources. SAY is a grant project funded by the U.S. Department of Agriculture (USDA), National Institute of Food and Agriculture to develop a sustainable and accessible national clearinghouse for agricultural safety and health curriculum for youth.

### **Making it Measurable**

For SAEs to be valued by school administration and provide appropriate feedback to students, they must be embedded within the instructional component of an agricultural education program. To see how this can be accomplished in the instructional sequence, check out the **Sample Instructional Plan**. The plan provides examples of how to build SAEs into a course structure as well as factor SAEs into each student's end-of-course grade.

### **Supervision**

Agriculture instructors have the primary responsibility for providing the supervision needed to keep a student safe and growing through an SAE. However, supervision does not equate to an on-site visit by the teacher every time and in every instance. Supervision can occur in groups, using computer technology, social media or any other appropriate measures that allow teachers to be as efficient with their time as possible. However, this does not mean that on-site instructional visits are not valuable for many types of SAEs. The key question a teacher must ask themselves is, "Where and when can I best provide coaching and feedback to enable my students to learn and grow through their SAE?"

For some student activities and enterprises, supervision may require additional instructor time outside the classroom/laboratory component of the program and should occur on a year-round basis. Supervision time may be required beyond the normal teaching contract. To accommodate this individualized, year-round instruction, the teacher should be provided extended contract days to facilitate supervision during summer months.

### *Supervision continued*

As the teacher to student ratio of agricultural education programs has grown, supervising large numbers of students can be a daunting task. The **Sample Supervision Plan** in the Appendix provides an example of how to meet the supervision needs of a large program. In addition, it is recommended that instructors tap into the employers and other local professionals to assist in providing regular coaching and feedback to students. Student documentation of these meetings will provide accountability that supervision, leading to learning and growth, is taking place.

No matter where or when supervision takes place, it is recommended that teachers approach each supervision conversation using David Kolb's research-based Experiential Learning Model. Kolb's model has shown that the most efficient way for students to transform their experiences into knowledge and meaning is to do the following:

- 1) Reflect on their experience and document any important observations
- 2) Think about and try to conceptualize an idea or theory around what they experienced and what might happen if they did something different
- 3) Plan for what they should try next
- 4) Put their plan into action with another concrete experience

The questions included in the Sample Supervision plan are based on the experiential learning model. Additional information on Kolb's work with experiential learning can be found online at <http://learningfromexperience.com>.

# Making it a Fit for All Students

Every teacher has experienced the SAE conversation where the student asks, “Do I really need to have an SAE?” While the answer to that is, “Yes!” convincing some students can be a little difficult. The most important step in building a strong SAE culture in your program is motivating students to start and grow their SAEs.

## 1. Make SAEs a graded component of every class.

The new Foundational SAE is designed to become an easily graded SAE that may be implemented into every agricultural course. It will include individualized graded activities that may be inserted into coursework like a term paper or a capstone project. After the concept of SAEs has been introduced, provide students the project details with options of activities they can complete to meet the requirements. For activity ideas, check out the [Foundational SAE Learning Outcomes and Activities](#) in the Appendix.

## 2. Focus on What’s In It For Me (WIIFM).

When you introduce the concept of SAEs be sure to first focus on the value they provide to the student, or the WIIFM. An example might be to show the word art with the SAE benefits on the screen and asking the students to pick one that is important to them. Have them share why it is important, then provide an example of how that benefit has become a reality for a former student.

An alternative to this activity would be to have former or current students that have experienced these benefits share their stories. Make sure to highlight as many of the benefits as possible, because each student is motivated by different things.

Learn **real-world** skills.  
Get **hands-on** experience.  
**Explore** careers. Find a career **mentor**.  
Be **college-** and **career-**ready.  
Find your **passion**.  
**Earn \$** while you learn.  
Be an **entrepreneur**.  
Put your **talents** to work.

### 3. Assign career exploration and planning as the first **Foundational SAE** activity.

#### ***A Note About Career Exploration and Documenting the Career Plan***

Many states and school districts are now requiring that students have some form of individualized career and academic plan prior to graduation. With the addition of the **Foundational SAE** and its required career exploration and planning, agricultural education students can meet or exceed district requirements through their SAE. The career exploration and planning should start as soon as a student enrolls in an agricultural education course and continue throughout their high school experience. See the **Sample Career Plan Template** in the Appendix.

A key component of quality SAE is documentation of skills and knowledge attained, credentials or certifications earned, evidence of prior planning, evidence of reflection and evidence of career planning. Capturing and storing each students' information can happen in a variety of ways. You can use the following:

- Your school's career and academic planning tool
- Career planning tools and templates in the "Build" section of FFA's "My Journey" (<https://www.ffa.org/my-journey/student>)
- Online tools like "The AET" ([www.theaet.com](http://www.theaet.com))
- ePortfolios with GoogleApps (<https://sites.google.com/site/eportfolioapps/online-tutorials-sites/sites-how-to>)

No matter what system you use for students to document their SAE, remember that this data can and should be considered a source for evidence of student growth, program of study completion and determination of college and career readiness. Visit with your administrator or school counselor about how your SAE data might fit into your state's school accountability system.



# What are the SAE Options?



## Foundational SAE



The **FOUNDATIONAL SAE** is conducted by all students in the agricultural education program including students that are on a four-year sequence and those who enroll for a semester. It consists of the following five components:

**Foundational**  
includes five required and graded components as a part of every course

- Career Exploration and Planning*
- Employability Skills for College and Career Readiness*
- Personal Financial Management and Planning*
- Workplace Safety*
- Agricultural Literacy* The Agricultural Literacy component of the Foundational SAE may be transitioned to one or more Immersion SAEs.

### 1) Career Exploration and Planning

In this component, students will research and explore career opportunities within the ANFR industry. They will complete interest inventories and identify a career goal. Ultimately, students will be able to describe AFNR career opportunities and the path to achieving those opportunities. The essential components of a career plan are outlined in the **Sample Career Plan Template** in the Appendix.

### 2) Employability Skills for College and Career Readiness

Through the Employability Skills component, students will develop the skills needed to succeed in both college and career. These skills include responsibility, communication, innovation, critical thinking and collaboration.

### 3) Personal Financial Management and Planning

Crafting a personal financial management plan is the focus of the Personal Financial Management and Planning component. Students need to understand how personal financial practices like budgeting, saving and appropriate use of credit lead to financial independence.

#### 4) Workplace Safety

Where many of the AFNR career pathways contain hazardous occupations, it is critical that all students have a strong base of instruction and experience with workplace safety. In this component, students will examine and summarize the importance of health, safety and environmental management systems in the AFNR workplace.

#### 5) Agricultural Literacy

All students also need a base understanding of the width and breadth of the agricultural industry. This component will require students to research and analyze how issues, trends, technologies and public policies impact AFNR systems. They will also evaluate the nature and role of agriculture in society and the economy.

These components lead to the selection and implementation of one or more of the Immersion SAE categories discussed later in the document. The Foundational SAE is ongoing throughout the student's enrollment in agricultural education and will continue alongside Immersion SAEs implemented by a student.

It is envisioned that the Foundational SAE be project-based with the student selecting or proposing their own activities that lead to a learning outcomes for each component. A list of selected learning outcomes from the AFNR Technical Standards and suggested student activities is available in the Appendix under **Foundational SAE Learning Outcomes and Activities**. In addition, the **Sample Instructional Plan** includes an example of how to grade Foundational SAE activity completion as a part of the broader instructional program.

#### **IMPORTANT NOTE:**

*While the Foundational SAE is essential for every student's SAE program, hours spent on this element outside the context of an immersion SAE may not contribute to the attainment of FFA awards or degrees.*



# Meet Emma

## Foundational SAE in Action

### HOW DID YOU START YOUR SAE?

During my introduction to animal science class, my agricultural education instructor had me use the Career Finder in Ag Explorer to identify my career interests. Ag Explorer helped me connect my love for animals to possible careers and create my **Career Plan**. To make sure that this was a fit for me, my instructor suggested that I shadow our local veterinarian a couple days a week during the summer months. After my parents, teacher and I completed the **SAE Risk Assessment** and I received the proper training, I started my **shadowing experience**.

### WHAT DO YOU ENJOY ABOUT YOUR SAE?

My Foundational SAE has helped me find and plan my career path. I love being a part of the work we do at the vet clinic and seeing the reactions from customers whose animals are happy and healthy again. I mostly observe when I am at the clinic, but I take advantage of any moment I get to love on the animals. My favorite part about my shadowing experience is listening to the staff members diagnose an animals' condition. Sometimes I even catch bits of **information and terminology** I learned in my animal science course.

### IN WHAT OTHER WAYS HAS YOUR SAE CHANGED OVER TIME?

Over time I have used my experience at the clinic to complete a variety of Foundational SAE activities assigned by my instructor. I interviewed the veterinarian, created and presented a **report** to my class on the **employability skills** she looks for in staff. I also learned about **finances** and the importance of accurate **records** not only for clinic, but for the animals as well. By the end of the summer, I had a journal full of pages detailing everything I learned.



Photo courtesy of the National FFA Organization

### WHAT ARE YOUR FUTURE PLANS?

My instructor has asked if I wanted to start an Ownership SAE with a livestock species, but I told her we did not have the space at my house. Shadowing a veterinarian made me realize the amount of time and resources it takes to care for sick or injured animals. My dream is to work at a veterinary clinic after I graduate high school and eventually open my own clinic. For now, I created a personal budget to help me save for veterinary school. I also hope to expand my Foundational SAE to include an Internship SAE working part-time for the veterinary clinic.

### REQUIREMENTS IN ACTION

- 1) Career exploration and planning
  - a. **Career Plan**
  - b. **Job shadowing**
- 2) Employability skills for college and career readiness
  - a. **Report on employability skills**
- 3) Personal financial management and planning
  - a. **Finances and records**
- 4) Workplace safety
  - a. **Workplace safety training**
- 5) Agricultural literacy
  - a. **Information and terminology from animal science class**

# IMMERSION SAEs



Even though Immersion SAEs are an extension of the Agricultural Literacy component of the Foundational SAE, they will contribute to a student's growth in all of the Foundational components in an authentic, contextualized manner.

- 1) Career Exploration and Planning:** The selection of Immersion SAEs is aligned to and supports a student's career interest as defined in their individual career plan from the Foundational SAE. Immersion SAEs are designed to help students transition from career exploration to career preparation.
- 2) Employability Skills for College and Career Readiness:** Immersion SAEs take students into authentic work environments and settings, which is the best place to learn and receive coaching and feedback on critical employability skills. All Immersion SAE plans should include an identified list of employability skills to be developed and a method of evaluation by employer, peer, mentor or instructor.
- 3) Personal Financial Management and Planning:** Due to the potential for earnings, Immersion SAEs may offer the opportunity for students to apply personal financial management and planning skills acquired through the Foundational SAE. Additional specific financial management and planning skills should be applied based on the Immersion SAE selected by the student.
- 4) Workplace Safety:** It is imperative for all participants of Immersion SAEs to foster and implement a culture of safety. This can be accomplished by:
  - Performing an environmental safety review on themselves and their work site.
  - Pursuing and completing the necessary safety training needed for employment.
  - Taking measures to address any safety concerns identified.
- 5) Agricultural Literacy:** Students move beyond agricultural literacy to developing knowledge, skills and expertise within a specific AFNR pathway based on the specific Immersion SAE selected.

Supervision of Immersion SAEs is a critical component that is overseen by the local agriculture instructor. The local teacher may delegate supervision responsibilities to other trusted adults. Supervision may be conducted in a variety of methods in addition to on-site visitations.

Immersion SAEs can happen in the school facilities and occasionally during the school day if the program is student-managed, outside formal instructional time, simulates a real-world work environment, is tied to a career plan and is otherwise not connected to directed laboratory instruction by the teacher.

## THERE ARE FIVE TYPES OF IMMERSION SAEs:

- Placement/Internship SAE
- Ownership/Entrepreneurship SAE
- Research: Experimental, Analysis or Invention SAE
- School-Based Enterprise SAE
- Service Learning SAE



## Placement/Internship SAE



In a **PLACEMENT SAE**, the student is in an employment setting (either paid or volunteer). The student performs the tasks determined by the employer which are necessary for the operation of the business. Students are evaluated by the employer under the guidance of the agriculture instructor. The placement experience must provide opportunity for the development and advancement of skills and abilities aligned to the AFNR Technical Standards and Career Ready Practices.

### **Placement SAE Quality Indicators:**

The student:

- Maintains SAE documentation which contains:
  - **Supervised Agricultural Experience (SAE) Agreement**
  - Hours worked
  - Income received
  - List of tasks performed in the placement
  - Knowledge and skills attained
- Receives regular employer/supervisor evaluation



The **INTERNSHIP SAE** is an advanced level of the placement. It entails greater involvement of the student, instructor and the employer in determining the activities the student performs in the job setting. The internship experience is directed not as much by the business operation but by a **Supervised Agricultural Experience (SAE) Training Plan** created for the maximum benefit of developing the student's knowledge and skills. The plan also contains a list of AFNR Technical Standards and Career Ready Practices which the student will master as a part of their internship experience. Student evaluation is performed by the employer and measures student performance based upon the measures identified in the training plan.

### **Internship SAE Quality Indicators:**

The student:

- Completes elements from the Placement SAE
- Develops and implements a Training Plan centered on the educational development of the student

**NOTE:** The **Supervised Agricultural Experience (SAE) Training Plan** meets all expectations of U.S. Department of Labor (DOL) guidelines for student learner exemptions from *HO Ag Occupations*, *Child Labor Bulletin 101 and 102* (*Hazardous Occupations*).

- Documents regular reflection on the experience
- Presents a summary of the experience to a local committee organized by the agricultural education instructor



# Meet Celia

## Placement/Internship SAE in Action

### HOW DID YOU START YOUR SAE?

I knew I wanted to get a part-time job while in high school to save money for a car when I turned 16. I thought I would enjoy working at a local bakery - the owners are family friends and we love buying their baked goods to celebrate every family birthday! So, I went to the bakery one morning during the summer and told them I was looking for a part-time job. They agreed to let me work at the front counter that summer. I started tracking my hours and income and, when school started back up in the fall, I continued working after school and on the weekends.

### WHAT DO YOU ENJOY ABOUT YOUR SAE?

After working at the counter for a while, I started asking a lot of questions about how the owners developed the recipes our customers enjoy so much. The owners realized my interest and started letting me help them in the kitchen on Saturday mornings. I started noticing how much of a difference it makes to carefully selecting the right ingredients, like flour. Now, they let me try different brands and types of ingredients to identify possible ways of improving their products. I have so much fun experimenting with the recipes!

### IN WHAT OTHER WAYS HAS YOUR SAE CHANGED OVER TIME?

While working at the counter, I found some customers liked to ask a lot of questions about the baked goods before deciding on their orders. As I relayed their questions to the bakery owners, the owners started thinking they would like to create an environment at the bakery that teaches customers what is in the baked goods. I thought that sounded fun and volunteered to design a display that demonstrates how flour is produced. Working with my agricultural education instructor, we identified a Training Plan that



Photo courtesy of the National FFA Organization

incorporated the skills necessary to promote consumer confidence. My employers agreed to support the plan and my Placement SAE became an Internship SAE. That project turned into ongoing efforts to help the bakery create materials and fun events to teach customers about the ingredients in the recipes. We even found opportunities to source ingredients straight from the community, like making our jams and jellies using fruits from nearby produce farms!

### WHAT ARE YOUR FUTURE PLANS?

I had no idea I would enjoy marketing so much, but I have had so much fun helping the bakery figure out marketing strategies that would show customers where the ingredients come from. I think I want to pursue agricultural marketing as a career, so I can continue the type of work I've been doing at the bakery with other agricultural businesses.

### REQUIREMENTS IN ACTION

- 1) Maintains SAE documentation
  - a. Tracking my hours and income
- 2) Regular employer supervision and evaluation
  - a. Owners realized my interest
- 3) Training Plan
  - a. Maintains SAE Agreement or Training Plan
- 4) Identification of AFNR standards and competencies to develop
  - a. Skills necessary to promote consumer confidence



## Ownership/Entrepreneurship SAE



Students conducting an **OWNER-SHIP SAE** operate an individual business which provides goods and/or services to the marketplace. The operational and risk management decisions on how goods and/or services are provided are made by the student owner. Some facilities, input resources and equipment necessary for the SAE operation can be provided from outside individuals without expectations of compensation coming from the student or SAE. The operation must be of sufficient scope to enable development of student skills and abilities aligned to the AFNR Technical Standards and Career Ready Practices.

### **Ownership SAE Quality Indicators:**

The student:

- Completes the basic **Supervised Agricultural Experience (SAE) Agreement**
- Provides the labor resources for operation of the SAE
- Maintains financial records which reflect all inputs and outputs of the production functions performed by the business
- Performs an analysis on the productivity and profitability of the enterprise at the completion of each production/business cycle
- Documents knowledge and skills gained through the experience



A student transitions to an **ENTREPRENEURSHIP SAE** at the point the Ownership SAE is enhanced to contain or meet additional criteria. It incorporates all aspects of an Ownership SAE and requires the student to identify and account for, either financially or non-financially, all resources used in the business. The Entrepreneurship SAE includes a **Supervised Agricultural Experience (SAE) Business Plan** which provides for the continued growth and expansion of the operation.

### **Entrepreneurship SAE Quality Indicators:**

The student:

- Completes all elements from the Ownership SAE
- Performs analysis on both production functions and profitability of business using standard acceptable business statements
- Identifies those features of the business which are not realistic to the real world (e.g., buying an animal for show at greater than market value, feeding a ration different than a normal market animal would receive, selling in an artificial market or premium sale, etc.) and analyzes the business using real world scenarios
- Identifies and accounts for, either financially or non-financially, all resources utilized in the business in the accounting system
- Creates and updates a **Supervised Agricultural Experience (SAE) Business Plan** annually



# Meet Frank

## Ownership to Entrepreneurship SAE in Action

### HOW DID YOU START YOUR SAE?

One of my weekly chores was to mow my family's lawn. Our neighbor saw me mowing one day and asked if I could mow their lawn as well. I figured this would be a great opportunity for the future because one of my goals after high school is to own my own business. I started small, mowing only a few lawns my first year. When my agricultural education instructor saw my progress, she suggested I take the next step and move my Ownership SAE to an Entrepreneurship SAE. I **created a Business Plan** to market my services, add employees and equipment and track my return on investments. Before the next summer ended, I had 15 new customers and expanded the services I offered.

### WHAT DO YOU ENJOY ABOUT YOUR SAE?

The best part about my SAE is the opportunity to create relationships and network with my customers. Many of the customers I work for each week have busy lives. I provide them a valuable service – more time with their family and loved ones. After mowing their lawns for a while, my customers began to ask me questions about their yards and landscaping. I found myself using information I learned from my horticulture and landscape design classes to help my customers in new ways. I love helping them enhance the aesthetic value of their property!

### IN WHAT OTHER WAYS HAS YOUR SAE CHANGED OVER TIME?

After receiving positive customer feedback about my landscaping advice, I decided to **expand my Business Plan**. In addition to mowing, I now offer my customers landscape design, plant selection and regular maintenance services. My most active seasons are spring, summer and part of fall. During the winter months, I spend time drawing landscape designs and carefully selecting the best plants for



Photo courtesy of the National FFA Organization

my customers' yards. I also spend a lot of time **documenting my expenses and income** to **keep track of my growth**. To market my business, I hand out brochures explaining what services I offer and reviews from previous customers.

### WHAT ARE YOUR FUTURE PLANS?

I never thought mowing my lawn as a weekly chore would turn into a growing business I enjoy. Landscape design and maintenance has become not only an SAE and business, but a hobby of mine! I think landscaping and lawn maintenance is something I want to pursue as a full-time career. After high school, I plan to expand my Business Plan and attend college part-time to study landscape architecture.

#### REQUIREMENTS IN ACTION

- 1) Creates and maintains basic **SAE Agreement** or **Business Plan**
  - a. **Created a Business Plan**
- 2) Maintains SAE documentation
  - a. **Documenting my expenses and income**
- 3) Productivity and profitability analysis
  - a. **Expand my Business Plan**
- 4) Documentation of AFNR standards and competencies developed
  - a. **Keep track of my growth**



## Research: Experimental, Analysis or Invention SAE



A student conducting a **RESEARCH SAE** is involved in an investigation of materials, processes and information to establish new knowledge or the validation of previous research. Research conducted must have applications within AFNR Technical Standards.

There are three variations of research SAE available that students may conduct:

**EXPERIMENTAL:** An Experimental Research SAE involves the application to the scientific method to control certain variables while manipulating others to observe the outcome. The student defines the hypothesis the experiment will test, determines the experimental design, conducts the research, collects the data, draws conclusions from the data and recommends further research that can be done.

**ANALYTICAL:** An Analytical Research SAE often begins with a question that asks why or how something occurs, followed by a period of data collection using qualitative and/or quantitative methodologies. The student then conducts analysis of data, facts and other information to determine the answer to the posed question.

**INVENTION:** An Invention Research SAE applies the engineering design process to create a new product or service. This type of research often begins with the identification of a need and the development of a product followed by an iterative process of prototyping and testing that results in a product that meets the identified need.

### **Research SAE Quality Indicators:**

The student:

- Engages in identifying an ongoing program of research following an approved **Supervised Agricultural Experience (SAE) Research Plan**
- Follows scientific process and/or accepted best practices for conducting research to ensure reliability, validity and replicability of research
- Conducts peer reviews with supervising agriculture instructor and other professionals during multiple stages of the research cycle (e.g., proposal, report of findings, publications, etc.)
- Delivers a summary presentation to a local committee organized by the agricultural education instructor



## Research SAE in Action

### HOW DID YOU START YOUR SAE?

From the time I was a little girl, I have enjoyed visiting my aunt and uncle's dairy farm. I look forward to milking the cows or feeding the calves each time. After learning about milk replacer for calves in my Introduction to Agriculture course, I decided I wanted to apply some of my knowledge at the farm. I wanted to help my aunt and uncle use the best products and practices on their farm. With the help of my agricultural education instructor, I developed an **Analytical Research SAE** to determine the best milk replacer for my aunt and uncle to use for their livestock.

### WHAT DO YOU ENJOY ABOUT YOUR SAE?

Math and science are two of my favorite subjects, but I could never think of ways to apply my skills outside of the classroom. My Analytical Research SAE gives me an avenue to pursue my love of science, math research and agriculture in one setting. Not to mention, I get to spend hours each week with my aunt and uncle and their livestock. I enjoy telling my friends stories about the work I am doing on the farm.

### IN WHAT OTHER WAYS HAS YOUR SAE CHANGED OVER TIME?

The initial stages of my research started with identifying different brands of milk replacer and testing their effectiveness with different calves. I used **qualitative and quantitative methods** of data collection and recorded my findings in a journal. Throughout the project, it was important I **report my findings to my instructor** to ensure I was following the best research practices available. At the conclusion of my research, I developed a presentation of my findings. I shared this with a **local committee** organized by my agricultural education instructor.

## Meet Jessica



Photo courtesy of the National FFA Organization

### WHAT ARE YOUR FUTURE PLANS?

My Analytical Research SAE sparked within me a passion for dairy research. I am applying to universities with degrees in Dairy Science to hopefully continue my research on improving production efficiency. I cannot wait to share my work with others and advocate for an industry I love.

#### REQUIREMENTS IN ACTION

- 1) Ongoing research using **Research Plan**
  - a. **Maintain a plan for an Analytical, Experimental, or Invention research program**
- 2) Follows scientific process
  - a. **Qualitative and/or quantitative methods**
- 3) Peer review
  - a. **Report my findings to my instructor**
- 4) Summary presentation
  - a. **Shared with a local committee**



## School-Based Enterprise SAE



A **SCHOOL-BASED ENTERPRISE SAE** is an Entrepreneurship SAE with a twist. The difference is that the operation is based at the school and involves a group of students working cooperatively.

School-Based Enterprise SAEs are student-led business enterprises that provide goods or services. They are operated from the school campus utilizing facilities, equipment and other resources provided by the agricultural education program or the school in general. For a School-Based Enterprise, the student will be working with one or more of their peers on the operation of the enterprise. The business itself may be “owned” by the school or FFA chapter, meaning that the organization holds the risk of the business that is managed by students. Alternatively, the business may be structured as a partnership or cooperative between students. Partnership or cooperative agreements will be used to define how the responsibilities and profits are distributed.

**NOTE:** *If an enterprise operated from the school setting is managed by an individual student, then it is considered an individual SAE and is treated as either an Ownership/ Entrepreneurship SAE or a Placement/ Internship SAE that happens to occur on the school grounds.*

### **School-Based Enterprise SAE Quality Indicators:**

The student:

- Creates and updates a **Supervised Agricultural Experience (SAE) Business Plan** annually
- Operates the business under the overview of a board of directors to which the student management team provides reports throughout the business operation cycle
- Structures the business to provide for varying levels of student responsibility to allow for skill development and student advancement
- Operates the business in a realistic workplace environment providing real world workplace expectations for the students involved



# Meet Jesse

## School-Based Enterprise SAE in Action

### HOW DID YOU START YOUR SAE?

When I enrolled in my agricultural education course as a sophomore, my parents worried I would not have extra time to have a job. I spoke with my agricultural education instructor and she told me she always needed extra seasonal help maintaining the greenhouse after school. I began selling plants to customers in the spring as an employee in our school's greenhouse business. By working hard for customers and helping the team, I was selected in my junior year to be the **CEO of our School-Based Enterprise**.

### WHAT DO YOU ENJOY ABOUT YOUR SAE?

I love my SAE because I get to work with my peers and serve our community from our school greenhouse. High school keeps my friends and I busy. Being able to work on campus and learn more about agriculture in the process feels more like a hobby than a job. With the guidance of our student management team and **community board of directors**, I received a lot of support and advice to improve our business. I love my SAE because it shows younger FFA members the reward that comes from working hard for the things you care about.

### IN WHAT OTHER WAYS HAS YOUR SAE CHANGED OVER TIME?

Toward the end of our first selling season, our sales decreased and we stopped seeing new customers at the greenhouse. Our student management team decided to spend time developing promotional materials to spread the word about our products. We launched a marketing campaign to inform businesses and other citizens within our community about our business. My senior year we started looking into the possibility of a **school garden**. With the help



Photo courtesy of the National FFA Organization

of our agricultural education instructor, we had a fully functioning school garden to care for, and sell from, by the end of the school year.

### WHAT ARE YOUR FUTURE PLANS?

Gaining three years of experience in the greenhouse through my **School-Based Enterprise SAE** has given me the desire to study horticulture and start my own business. I want to continue the work I started at my school and educate people within my community about plant life and how each of them can start their own garden.

#### REQUIREMENTS IN ACTION

- 1) **Business Plan**
  - a. **Plan for School-Based Enterprise SAE**
- 2) Board of directors
  - a. **Community board of directors**
- 3) Student responsibility
  - a. **CEO of our School-Based Enterprise**
- 4) Realistic environment
  - a. **School garden**



## Service Learning SAE



A **SERVICE LEARNING SAE** is conducted by one or more students in which they plan, conduct and evaluate a project designed to provide a service to the school, public entities or the community. It must provide benefit to an organization, group or individuals other than the FFA chapter.

The project must be preapproved by a review committee that includes local stakeholders in addition to the agriculture teacher. It will be of sufficient scope to enable development of student skills and abilities aligned to the AFNR Technical Standards and Career Ready Practices.

### **Service Learning SAE Quality Indicators:**

The Student/Service Learning team:

- Develops a **Supervised Agricultural Experience (SAE) Service Learning Plan**

- Operates under the overview of a local committee to which the student management team provides reports throughout the service learning experience
- Provides for varying levels of student responsibility to allow for skill development and student advancement
- Operates in the local school, community or beyond and provides real world service learning experiences for the students involved
- Provides a summary report of the impact of the project to the local school and community
- Writes a reflection paper which describes their growth from the experience

**NOTE:** A Service Learning SAE should not appear within the FFA chapter's Program of Activities in a prior year unless it has been significantly expanded or changed.

### **What is the difference between Community Service and Service Learning?**

The main difference is the level of commitment and difference of intention. Community service projects are usually short, one hour to a day, investments of time to an organization or cause that will benefit the community.

Service learning involves being a part of the planning, preparation and implementation that results in benefit to the community. Service

learning requires a higher level of commitment and a sustained investment of time. It also starts with an intention of learning and an expectation of reflection and evaluation.

Managing and executing a community service project is service learning, volunteering the day of the event is community service.



# Meet Larissa

## Service Learning SAE in Action

### HOW DID YOU START YOUR SAE?

Some of my best childhood memories are riding my family's horses. Most of the time we ride for fun, but we also use our horses to herd cattle. One day while traveling with my family, I came across a therapeutic horseback riding center in a small community. I thought it would be a great idea to bring a similar service project to my community. I met with an organization that serves disabled youth in my community and gained their support for creating a program to provide horseback rides for the youth they serve. I worked with my agricultural education instructor to create an **SAE Service Learning Plan** to ensure the success and learning potential of my project. In the 18 months since the **plan was approved**, we have provided therapeutic horseback rides to more than 35 disabled youth.

### WHAT DO YOU ENJOY ABOUT YOUR SAE?

I think the most valuable aspect of my SAE is providing a free, safe activity for children who are sometimes left out. A disability does not mean someone is unable to enjoy fun activities. It simply means they do activities a little differently. Therapeutic horseback riding is great for children and families who want to relax and enjoy the outdoors with equine. I also enjoy it because it connects citizens in our community to the agricultural industry. The stories families told about their time with the horses were rewarding for me and the other volunteers.

### IN WHAT OTHER WAYS HAS YOUR SAE CHANGED OVER TIME?

My SAE began with me as the only volunteer. My parents allowed me to use a few of our horses while I was preparing. Based on my Service Learning Plan, I knew that I would need to learn more about horse training and therapeutic services. My parents taught me to train a couple of our horses to be gentle with kids. I worked



Photo courtesy of the National FFA Organization

with the **Learning Disabilities Association of America** to learn more about disabilities and caring for children who have them. After the conclusion of the project, other members within our FFA chapter wanted to help. I created a **small team of volunteers** and taught them everything I learned.

### WHAT ARE YOUR FUTURE PLANS?

When I prepared for this one-time project, I had no idea the community would show interest to continue the service for a longer period of time. I have always enjoyed serving others, but I never realized the impact I could have by using the resources I already had. My volunteer team and I are looking at the possibility of keeping the project going long-term. This project has opened my eyes to serving others in new ways and I have decided I want to **work for a non-profit organization** after high school.

#### REQUIREMENTS IN ACTION

- 1) Service Learning Plan
  - a. **Maintains a Service Learning Plan** each year of SAE
- 2) Local committee
  - a. **Plan was approved**
- 3) Student responsibility
  - a. **Small team of volunteers**
- 4) Real-world service learning experiences
  - a. **Learning Disabilities Association of America**
- 5) Reflection paper
  - a. **Work for a non-profit organization**

# Implementation Tips!

## REAL EXAMPLES

Real examples are the best way to motivate students to start and grow an SAE. Create examples like the ones on page 20 of the student guide based on former students. Better yet, have each of your graduating seniors create a summary of the real experience, real earnings and real employability skills they developed through their SAE as a capstone project. Compile the best summaries into a binder for students to look through for ideas.



**Service Learning SAE in Action**

Meet Larissa



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SAE OPTIONS | © 2017 The National Council for Agricultural Education 20

## REAL LEARNING FOR A REAL FUTURE

Have your students use page 21 in the student guide to explore using SAE as a worksheet to begin thinking about their own path to *Real Learning for A Real Future* on their own or in small groups.

### SAE Will Change Your Life!

SAE opportunities are truly endless and entirely based on exploring your passions and career interests. Career and academic preparation and readiness is the top priority for all SAEs. SAEs will look different for everyone. Beyond a fun way to explore your interests while satisfying course requirements in your agricultural education classes, SAEs offer opportunities to earn awards and degrees in FFA. You will also begin to build your resume, gather credible references and earn industry certifications. Your SAE may even give you the opportunity to "earn while you learn!"

Ok, so you still may be asking, "Will an SAE make a difference for me?" Your SAE will provide a unique set of experiences which will equip you for future career success. SAEs consistently provide one or more of the following Real Experience, Real Earnings and Real Employability Skills. Check out the stories below to see how SAE made a positive difference in the lives of these former students.\*

REAL EXPERIENCE	REAL EARNINGS	REAL EMPLOYABILITY SKILLS
<p>Hunter Ethan Corbett of the Lowndes County FFA Chapter in Milledgeville, Ga., has an SAE comprised of five research projects conducted over five years. He used the scientific method to solve environmental problems by proving a waste agricultural product known as cotton gin trash could have completely cleaned up the 2016 BP Oil Spill. Corbett plans to use these research skills and experiences to earn a medical degree in noninvasive cardiology at Emory University in Atlanta.</p>	<p>Shett Michael Bain of the Canyon FFA Chapter in Texas has developed, marketed and implemented a smartphone application called StockTrax. The app has changed the way people attend and watch stock shows and state fairs. Free to customers but sold as a yearly subscription to each show or fair, the app shows classes of participants.</p>	<p>Lillian Rose Rodicio of the Ferguson Senior FFA Chapter in Miami, Fla., has worked as an intern at local vet clinics for the past five years. When she began her internship, she was little more than an observer. After learning the ropes of the office, she was treated with more complex procedures like running blood tests and giving injections. She eventually had the opportunity to groom and care for the horses without supervision. Rodicio plans to continue working in a vet clinic while enrolled in college.</p>

\* Examples From National FFA Organization. (2016). 2016 National agricultural proficiency awards. Retrieved from [https://www.ffa.org/SiteCollectionDocuments/ffa\\_2016\\_proficiencyawards](https://www.ffa.org/SiteCollectionDocuments/ffa_2016_proficiencyawards)

These are just a few examples of SAEs that started with an interest. Be sure to start a conversation with your agricultural education instructor about your interests in agriculture to start planning up your SAE. That conversation will lead you to **Real Learning for A Real Future!**

SAE WILL CHANGE YOUR LIFE! | © 2017 The National Council for Agricultural Education 21

SAE FOR ALL TEACHER GUIDE | © 2017 The National Council for Agricultural Education

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# Appendix

## SAMPLE CAREER PLAN TEMPLATE

**SAE** is a student-led, instructor supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to a student's career plan of study.

Every agricultural education student will create and maintain a Career Plan as a part of their Foundational SAE. This plan should accomplish the following:

- **Change and grow throughout the students' agricultural education career**
- **Align to school career and academic planning requirements**
- **Be used as both a planning tool and a permanent record of learning and accomplishment of their plan.**

**IMPORTANT NOTE:** It is suggested to have students create this plan over time by completing the activities outlined in the **Career Exploration and Planning** section of the Foundational SAE Learning Outcomes and Activities resource. Students may use a variety of formats to capture the components of their plan.

### **Required Components**

1. Career Goal
  - a. Results from career interest inventory (e.g., Ag Explorer or another career planning tool)
  - b. Description of interest area (e.g., AFNR or another Career Pathway)
  - c. Job outlook
  - d. Educational requirements
  - e. Industry certifications available and/or needed
2. Post-secondary Aspirations & Options
  - a. Required education based on career goal
  - b. Institutions under consideration
    - i. Programs of study (e.g., degree, certificate, training, etc.)
    - ii. Length of program
    - iii. Cost of program
3. Employability Skills & Leadership Development
  - a. Leadership goals in FFA
  - b. Career-aligned CDEs
  - c. Leadership and personal development activities

## APPENDIX

### ***Required Components continued***

- d. Opportunities available outside of FFA
  - i. School organizations
  - ii. Community organizations
- 4. Personal Financial Literacy & Planning
  - a. Anticipated cost of post-secondary education or career training
  - b. Financial plan for meeting anticipated costs
    - i. Earnings and savings plan
  - c. Resources for scholarships, grants and loans
  - d. FASFA and federal aid
- 5. Workplace Experience Opportunities
  - a. Assessment of skills needed to learn to achieve SAE goals
  - b. Assessment of skill development and ability to articulate skills gained
  - c. Workplace safety certifications/preparation
- 6. Academic Planning & Progress
  - a. Four-year academic plan for high school graduation and career goal attainment
    - i. Clarify that this is not a static four-year plan; it is a dynamic plan that evolves no matter where the student starts
    - ii. Include all postsecondary options (e.g., two-year, four-year, military, etc.)
    - iii. Align academic plan to career plan
  - b. Identification of advanced credit opportunities
  - c. Updated semi-annually or quarterly

## APPENDIX

# SAMPLE INSTRUCTIONAL PLAN

### Embedding Foundational SAEs into Instruction

A sample instructional plan for the delivery of the Foundational SAE might look like the following:

1. During the first week of instruction, invest one or two days introducing the concept of SAEs using the “SAE for All Student Guide.”
2. At the end of the introductory lesson, assign or ask students to select two activities from each Foundational SAE component. Check out the **Foundational SAE Learning Outcomes and Activities** for ideas sorted by Foundational SAE component.
3. These activities will be the graded, project-based, experiential learning tasks over the remainder of the term.

Where the Foundational SAE continues with the student until graduation, the process of assigning or allowing students to select appropriate activities will continue through each agricultural education course offered. This will include the transition of the Agricultural Literacy component to an Immersion SAE. When a student takes the next step, the agreed upon activities for Agricultural Literacy would be based on their Immersion SAE plans and agreements.

### Incorporating SAE into Grading

Based on the alignment of activities to AFNR standards and performance indicators, SAEs can and should be a percentage of each student’s end of course grade. While the percentage may vary by program and institution type, here is an example that incorporates SAE as 15 percent of a student’s final grade.

#### **Foundational SAE Grading Plan** (15% of final grade)

1) Career exploration and planning .....	20 points
a. Creation and maintenance of a career plan (10 points)	
b. Completion of one approved activity (10 points)	
2) Employability skills for college and career readiness.....	20 points
a. Completion of two approved activities* (10 points per activity)	
3) Personal financial management and planning.....	20 points
a. Completion of two approved activities* (10 points per activity)	
4) Workplace safety .....	20 points
a. Completion of two approved activities* (10 points per activity)	
5) Agricultural literacy**.....	20 points
a. Completion of two approved activities* (10 points per activity)	
<b>Total.....</b>	<b>100 points</b>

\* See *Foundational SAE Learning Outcomes and Activities* for sample activities aligned to AFNR standards and sorted by Foundational SAE component.

\*\* When a student implements an Immersion SAE, activities in this component will include documentation and reflection on the approved Immersion SAE.

## APPENDIX

### *SAMPLE INSTRUCTIONAL PLAN CONTINUED*

#### **Important Considerations**

Based on the type of program, an instructor may want to do the following:

1. Increase the number of Foundational SAE activities
2. Require capstone elements like a portfolio or presentation
3. Increase the percentage of SAE as a component of the final grade
4. Make SAE a higher percentage of the grade for the introductory courses and a lesser part of the grade for advanced classes.

All are valid options. The key is that SAE needs to be a measured and graded part of the student's overall agricultural education experience.

## APPENDIX

### SAMPLE SUPERVISION PLAN

Agriculture instructors have the primary responsibility for providing the supervision needed to keep a student safe and growing through an SAE. However, supervision does not equate to an on-site visit by the teacher every time and in every instance. However, this does not mean that on-site instructional visits are not valuable for many types of SAE. The key question a teacher must ask themselves is, “Where and when can I best provide coaching and feedback to enable my students to learn and grow through their SAE?” Below is a sample plan for providing adequate supervision in a one teacher program with 150 students and no extended contract. The program has a normal sequence of courses from introductory to advanced with an average of 25 students per class.

#### Supervision for SAE in all Courses

Set aside three to four additional days spread evenly throughout the term for SAE Development, Coaching and Feedback. While the rest of the students are working on their SAE activities, conduct 5- to 7- minute (The number of minutes per student will be adjusted up or down depending on the number of students in class.) supervision or coaching sessions with individual students until you have had a conversation with each student.

#### Instructional Time Allocated:

Four 50-minute periods (4% of instructional time)

#### Supervision Conversation Example

*For students with Foundational SAEs, review each student's work so far and ask the following:*

1. What are the top three experiences you have had or lessons you have learned so far?
2. How has that influenced your thinking about your future and careers in agriculture?
3. Now what are you planning to work on next?
4. What assistance can I provide?

*If time allows it would also get the student thinking about the future by asking the following:*

1. Have you identified a career path?
2. Which Immersion SAE fits best with your career path?
3. What assistance can I provide to help you answer those questions?

## APPENDIX

### SAMPLE SUPERVISION PLAN CONTINUED

***For students with Immersion SAEs, review each student's documentation (i.e., SAE agreement, career plan, financial records, hour logs, competency checklists and/or journal entries) and ask the following:***

1. What has happened since our last SAE conversation? What have you accomplished?  
What challenges have you faced?
2. What does that mean for your SAE plan? Your experience? You and your career path?
3. Now what are your next steps? What will you try differently in the future?  
What impact do you think this will have?
4. Over the next few days, weeks and months, where can I be of assistance with your SAE?  
Would an on-site visit be helpful?\*

*\* For some types of SAEs including, but not limited to, Placement/Internship and Ownership/Entrepreneurship it may be important to conduct an on-site visit to ensure a safe work environment, correct a workplace issue or develop the Training or Business Plan. Students may schedule a visit with the instructor between 3:30 and 5 pm each day school is in session.*

## APPENDIX



# FOUNDATIONAL SAE LEARNING OUTCOMES AND ACTIVITIES

The Foundational SAE is conducted by all students in the agricultural education program including students that are on a four-year sequence and those who enroll for a semester. It consists of five components:

- 1) Career Exploration and Planning**
- 2) Employability Skills for College and Career Readiness**
- 3) Personal Financial Management and Planning**
- 4) Workplace Safety**
- 5) Agricultural Literacy**

This resource provides sample Foundational SAE activities organized by component and aligned to AFNR Technical Standards and Career Ready Practices. Multiple levels of rigor, from awareness to advance, allow teachers and students to select activities appropriate for needs of each student.

## APPENDIX

### Career Exploration and Planning

In this component, students will research and explore career opportunities within the ANFR industry. They will complete interest inventories and identify a career goal. Ultimately, students will be able to describe AFNR career opportunities and the path to achieving those opportunities. The essential components of a career plan are outlined in the [Sample Career Plan Template](#) (see page 25) in the Appendix.

**Key Deliverable:** Creation of and updates to career plan.

<b>AFNR Cluster Standard</b>	<b>CS.05.</b> Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.	
<b>Performance Indicators</b>	<b>CS.05.01.</b> Evaluate and implement the steps and requirements to pursue a career opportunity in an AFNR career pathway. <b>CS.05.02.</b> Examine and choose career opportunities that are matched to personal skills, talents, and career goals in an AFNR pathway of interest.	
SAMPLE MEASUREMENTS		
AWARENESS	INTERMEDIATE	ADVANCED
<b>CS.05.01.01.a</b> Identify and summarize the steps to pursue a career in an AFNR pathway (e.g., self-assessment, set goals, etc.). <b>SAMPLE ACTIVITY:</b> <i>Research a career and create a poster showing the steps it would take to pursue that career.</i>	<b>CS.05.01.01.b</b> Create a personal plan outlining goals and steps to obtain a career in an AFNR pathway. <b>SAMPLE ACTIVITY:</b> <i>Create a Career Plan including components required for the Foundational SAE.</i>	<b>CS.05.01.01.c</b> Evaluate progress toward AFNR career goals and identify opportunities for improvement and necessary adjustments to Career Plan. <b>SAMPLE ACTIVITY:</b> <i>Convert Career Plan into a Career Portfolio to use in interviews. Organize a review of the Career Portfolio with an employer.</i>
<b>CS.05.01.02.a</b> Examine the educational, training and experiential requirements to pursue a career in an AFNR pathway (e.g., degrees, certifications, training, internships, etc.). <b>SAMPLE ACTIVITY:</b> <i>Write a one-page career summary with a list of 10 measurable steps to take to be qualified for a career in an AFNR pathway.</i>	<b>CS.05.01.02.b</b> Analyze personal skill set and add to Career Plan options for attaining the required education, training and experiences to obtain a career in an AFNR pathway. <b>SAMPLE ACTIVITY:</b> <i>Add three strengths you possess and three areas of improvement necessary to fulfill AFNR career expectations</i>	<b>CS.05.01.03.c</b> Evaluate, update and improve a set of personal tools to reflect current skills, experiences, education, goals, etc. and complete the processes needed to pursue and obtain a career in an AFNR pathway. <b>SAMPLE ACTIVITY:</b> <i>Develop a digital portfolio to highlight current skills and work experience.</i>
<b>CS.05.02.02.a.</b> Research and describe careers in each of the AFNR pathways and choose potential careers connecting to personal interests and skills. <b>SAMPLE ACTIVITY:</b> <i>Complete career interest inventory and summarize results in a paper or presentation.</i>	<b>CS.05.02.02.b</b> Assemble and analyze examples of careers and related statistics on a local, state, national and global level. <b>SAMPLE ACTIVITY:</b> <i>Choose five AFNR careers of interest and develop a compare and contrast sheet with local, state, national and global statistics.</i>	<b>CS.05.02.02.c</b> Conduct interviews with career professionals within AFNR pathways and summarize the results. <b>SAMPLE ACTIVITY:</b> <i>Schedule interviews with three career professionals and record findings in a written summary.</i>

## APPENDIX

### Employability Skills for College and Career Readiness

Through the Employability Skills for College and Career Readiness component, students will develop the skills needed to succeed in both college and career. These skills include responsibility, communication, innovation, critical thinking and collaboration.

**Key Deliverable:** Documented demonstration of employability skills (e.g., letter of recommendation from employer highlighting application of employability skills).

<p><b>Career Ready Practices</b></p>	<p><b>CRP.01.</b> Act as a responsible and contributing citizen and employee.  <b>CRP.04.</b> Communicate clearly, effectively and with reason.  <b>CRP.06.</b> Demonstrate creativity and innovation.  <b>CRP.08.</b> Utilize critical thinking to make sense of problems and persevere in solving them.  <b>CRP.12.</b> Work productively in teams while using cultural/global competence.</p>	
<p><b>Performance Indicators</b></p>	<p><b>CRP.01.01.</b> Model personal responsibility in the workplace and community.  <b>CRP.04.01.</b> Speak using strategies that ensure clarity, logic, purpose and professionalism in formal and informal settings.  <b>CRP.04.02.</b> Produce clear, reasoned and coherent written and visual communication in formal and informal settings.  <b>CRP.06.01.</b> Synthesize information, knowledge and experience to generate original ideas and challenge assumptions in the workplace and community.  <b>CRP.08.01.</b> Apply reason and logic to evaluate workplace and community situations from multiple perspectives.  <b>CRP.08.02.</b> Investigate, prioritize and select solutions to solve problems in the workplace and community.  <b>CRP.12.01.</b> Contribute to team-oriented projects and builds consensus to accomplish results using cultural global competence in the workplace and community.</p>	
<p><b>SAMPLE MEASUREMENTS</b></p>		
<p><b>AWARENESS</b></p>	<p><b>INTERMEDIATE</b></p>	<p><b>ADVANCED</b></p>
<p><b>CRP.01.01.01.a.</b> Define personal responsibility and distinguish how it applies in workplace and community (e.g., make educated choices, listen and follow directions, ask for help when needed, meet expected standards, etc.).   <b>SAMPLE ACTIVITY:</b> Write a two-page personal reflection about responsibility and its role in the workplace and community.</p>	<p><b>CRP.01.01.02.b</b> Assess personal level of responsibility and examine opportunities for improvement.   <b>SAMPLE ACTIVITY:</b> Collect and compare a personal, peer and mentor rating of your level of responsibility.</p>	<p><b>CRP.01.01.01.c.</b> Evaluate past workplace and community situations and determine how personal responsibility positively or negatively impacted outcomes.   <b>SAMPLE ACTIVITY:</b> Prepare a three to five-minute speech or presentation articulating the effects of personal responsibility from a past situation.</p>

## APPENDIX

### Employability Skills for College and Career Readiness continued

<p><b>CRP.04.01.01.a.</b> Identify and categorize strategies for ensuring clarity, logic, purpose and professionalism in verbal and non-verbal communication (e.g., tone, organization of thoughts, eye contact, preparation, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Make a list of 10 personal strategies that enhance verbal and non-verbal communication.</i></p>	<p><b>CRP.04.01.01.b.</b> Analyze use of verbal and non-verbal communication strategies in workplace situations.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Read and print three peer-reviewed articles about verbal and non-verbal communication in the workplace.</i></p>	<p><b>CRP.04.01.01.c.</b> Evaluate other's verbal and non-verbal communications (e.g., speeches, presentations, oral reports, etc.) and propose recommendations for improvement in clarity, logic, purpose and professionalism.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Listen to two students' speeches and presentations and provide constructive written and verbal feedback.</i></p>
<p><b>CRP.04.02.01.a.</b> Identify and examine methods for producing clear, reasoned and coherent written and visual communication that are appropriate to the task, purpose and audience (e.g., audience analysis, objective development, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Brainstorm ways people best receive verbal and non-verbal communication. Record thoughts in a two-paragraph essay.</i></p>	<p><b>CRP.04.02.01.b.</b> Apply techniques for ensuring clarity, logic and coherence to edit written and visual communications (e.g., emails, reports, presentations, technical documents, diagrams, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Gather two written and visual communication documents and edit using techniques for clarity, logic and coherence.</i></p>	<p><b>CRP.04.02.01.c.</b> Compose clear and coherent written documents and visuals (e.g., agendas, audio-visuals, drafts, forms, etc.) that are adapted to the audience needs in both formal and informal settings.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Choose an approved AFNR business and develop three written and visual documents adapted to the audience.</i></p>
<p><b>CRP.06.01.01.a.</b> Identify and summarize steps for generating ideas used in the workplace and community.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Compare three ways of generating ideas, i.e. brainstorming, mind mapping, etc.</i></p>	<p><b>CRP.06.01.01.b.</b> Synthesize information, knowledge and experiences to generate ideas for workplace and community situations.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Think of an AFNR career of interest and use knowledge and past experiences to write five innovative ideas for the workplace or community.</i></p>	<p><b>CRP.06.01.01.c.</b> Evaluate workplace and community situations and devise strategies to apply original ideas.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Research an AFNR business and write a report analyzing three ways the employees are applying original ideas within the workplace.</i></p>
<p><b>CRP.08.01.02.a.</b> Examine and identify opportunities to apply reason, logic and multiple perspectives to solve problems in workplace and community situations.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Contact manager at a local AFNR business and ask questions about common workplace conflicts and how they were resolved.</i></p>	<p><b>CRP.08.01.02.b.</b> Assess solutions to workplace and community problems for evidence of reason, logic and consideration of multiple perspectives.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Develop flashcards of common workplace conflicts and strategies to solve them using logic, reason and new perspectives.</i></p>	<p><b>CRP.08.01.02.c.</b> Devise and implement strategies to apply reason, logic and input from multiple perspectives to solve workplace and community problems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Conduct a 20-minute debate with students representing both sides of an argument. Include multiple opinions and perspectives during deliberation.</i></p>

## APPENDIX

### Employability Skills for College and Career Readiness continued

<p><b>CRP.08.02.02.a.</b> Identify and summarize steps in the decision-making process to solve workplace and community problems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Organize a word document containing five to seven chronological, detailed steps used to solve workplace or community problems.</i></p>	<p><b>CRP.08.02.02.b.</b> Apply decision-making processes to generate possible solutions to solve workplace and community problems.</p> <p><b>SUGGESTED ACTIVITY:</b> <i>Compare the use of decision-making steps in two different work-based situations. Include insights and outcomes from each situation.</i></p>	<p><b>CRP.08.02.02.c.</b> Evaluate and select solutions with greatest potential for success to solve workplace and community problems.</p> <p><b>SUGGESTED ACTIVITY:</b> <i>Read a peer reviewed article or published book about problem solving and write a three-page reflection about best practices to implement within the workplace or community.</i></p>
<p><b>CRP.12.01.01.a.</b> Differentiate the strengths and talents of all team members needed to complete projects in the workplace and community.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Record three strengths and talents of each member of a team you are on and record ways the strengths could be applied in the workplace.</i></p>	<p><b>CRP.12.01.01.b.</b> Formulate action plans to complete team-oriented projects in the workplace and community, including plans for personal contributions.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a poster presentation detailing tasks each team member can best contribute during team-oriented projects.</i></p>	<p><b>CRP.12.01.01.c.</b> Evaluate the effectiveness of team-oriented projects at work and in the community and make recommendations for future improvements.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Interview a team-manager who works within an AFNR career about the effectiveness of team-oriented projects.</i></p>

## APPENDIX

### Personal Financial Management and Planning

Crafting a personal financial management plan is the focus of the Personal Financial Management and Planning component. Students need to understand how personal financial practices like budgeting, saving and appropriate use of credit lead to financial independence.

**Key Deliverable:** Development of a personal budget and financial plan for the future.

<b>Career Ready Practices</b>	<b>CRP.03.</b> Attend to personal health and financial well-being.	
<b>Performance Indicators</b>	<b>CRP.03.02.</b> Design and implement a personal financial management plan.	
SAMPLE MEASUREMENTS		
AWARENESS	INTERMEDIATE	ADVANCED
<p><b>CRP.03.02.01.a.</b> Research and examine components in a personal financial management plan (e.g., income, expense, budgeting, savings, credit, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Print and read three online periodicals or peer-reviewed articles about personal financial management.</i></p>	<p><b>CRP.03.02.01.b.</b> Analyze management tools available for managing personal finances (e.g., software, calendars, banks, financial institutions, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Write a summary of the benefits and limitations of a financial management tool.</i></p>	<p><b>CRP.03.02.01.c.</b> Appraise and select management tools to include in a personal financial management plan.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Use a financial management tool to generate common financial reports, i.e. balance sheet, income statement and statement of cash flows.</i></p>
<p><b>CRP.03.02.02.a.</b> Examine and categorize personal financial practices (e.g., earning, spending, use of management tools, credit, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a personal budget and track monthly financial activity.</i></p>	<p><b>CRP.03.02.02.b.</b> Analyze the effectiveness of a personal financial management plan and explain how this practice may contribute to future financial independence.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Rate the effectiveness of current personal financial practices from one to five. One being highly effective, five being highly ineffective. Give an explanation for each.</i></p>	<p><b>CRP.03.02.02.c.</b> Design, implement and evaluate a personal financial management plan.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Choose a personal finance software such as LearnVest or OfficeTime to develop a personal financial plan.</i></p>

## APPENDIX

### Workplace Safety

Because many of the AFNR career pathways contain hazardous occupations, it is critical that all students have a strong base of instruction and experience with workplace safety. In this component, students will examine and summarize the importance of health, safety and environmental management systems in the AFNR workplace.

**Key Deliverable:** Attainment of safety certifications necessary for career path defined in the student's career plan.

<b>AFNR Cluster Standard</b>	<b>CS.03.</b> Examine and summarize the importance of health, safety and environmental management systems in AFNR workplaces.	
<b>Performance Indicators</b>	<p><b>CS.03.01.</b> Identify and explain the implications of required regulations to maintain and improve safety, health and environmental management systems.</p> <p><b>CS.03.03.</b> Apply health and safety practices to AFNR workplaces.</p> <p><b>CS.03.04.</b> Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.</p>	
SAMPLE MEASUREMENTS		
AWARENESS	INTERMEDIATE	ADVANCED
<p><b>CS.03.03.03.a.</b> Examine and categorize examples of how to avoid health or safety risks in AFNR workplaces.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Develop a list of 10 common workplace accidents and ways to avoid them.</i></p>	<p><b>CS.03.01.01.b.</b> Execute health, safety and environmental procedures to comply with regulatory and safety standards.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Deliver a 15 minute in-class presentation using health, safety and environmental safety visuals and examples.</i></p>	<p><b>CS.03.03.03.c.</b> Conduct a survey and evaluate results of AFNR workplaces to identify structure of health and safety practices and number of employees certified in first aid training.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Choose a local AFNR business and conduct a workplace safety evaluation.</i></p>
<p><b>CS.03.04.01.a.</b> Identify and differentiate the appropriate protective equipment for the safe use and operation of specific tools and equipment (e.g. PPE, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a word document with a list of personal protective equipment and their definitions.</i></p>	<p><b>CS.03.04.01.b.</b> Analyze and demonstrate adherence to protective equipment requirements when using various AFNR tools and equipment.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Locate five to 10 photos online with people in the workplace who are adhering to protective equipment requirements and five to 10 photos of people not adhering to PPE requirement's.</i></p>	<p><b>CS.03.04.01.c.</b> Design and implement plans to ensure the use of appropriate protective equipment when using various AFNR tools and equipment.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Write a three-page research paper about effective workplace safety and management strategies. Cite three peer-reviewed sources.</i></p>

## APPENDIX

### Workplace Safety continued

<p><b>CS.03.04.02.a.</b> Identify standard tools, equipment and safety procedures related to AFNR tasks.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a poster with commonly used tools in the AFNR field and the proper safety procedures associated with each.</i></p>	<p><b>CS.03.04.02.b.</b> Complete the set up and adjustment for tools and equipment related to AFNR tasks.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Set up five to seven common tools used in a specific AFNR task and specify proper safety equipment and procedures during presentation</i></p>	<p><b>CS.03.04.02.c.</b> Evaluate and select appropriate tools and equipment to complete AFNR tasks.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Develop a PowerPoint presentation with 15 different AFNR tasks and the proper tools and safety equipment for each.</i></p>
<p><b>CS.03.04.03.a.</b> Read and interpret operating instructions related to operation, storage and maintenance of tools and equipment related AFNR tasks.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Complete an SAE Risk Assessment and reflect on the results.</i></p>	<p><b>CS.03.04.03.b.</b> Assess and demonstrate appropriate operation, storage and maintenance techniques for AFNR tools and equipment.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Analyze the condition of five ANFR tools and put away tools using proper safety procedures.</i></p>	<p><b>CS.03.04.03.c.</b> Devise and implement operation, storage and maintenance plans or schedules for AFNR tools and equipment.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create an excel sheet detailing the inventory and status of AFNR tools and equipment as well as possible scheduled tool check-out times.</i></p>

## APPENDIX

### Agricultural Literacy and Exploration

All students need a base understanding of the width and breadth of the agricultural industry. This component will require students to research and analyze how issues, trends, technologies and public policies impact AFNR systems. They will also evaluate the nature and role of agriculture in society and the economy.

**Key Deliverable:** Understanding of the AFNR industry and selection of one or more Immersion SAEs.

<p><b>AFNR Cluster Standard</b></p>	<p><b>CS.01.</b> Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food &amp; Natural Resources Career Cluster.</p> <p><b>CS.02.</b> Evaluate the nature and scope of the Agriculture, Food &amp; Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.</p>	
<p><b>Performance Indicators</b></p>	<p><b>CS.01.01.</b> Research, examine and discuss issues and trends that impact AFNR systems on local, state, national and global levels.</p> <p><b>CS.01.03.</b> Identify public policies and examine their impact on AFNR systems.</p> <p><b>CS.02.02.</b> Examine the components of the AFNR systems and assess their impact on the local, state, national and global society and economy.</p>	
<p><b>SAMPLE MEASUREMENTS</b></p>		
<p><b>AWARENESS</b></p>	<p><b>INTERMEDIATE</b></p>	<p><b>ADVANCED</b></p>
<p><b>CS.01.01.02.a.</b> Research and summarize trends impacting AFNR systems.</p> <p><i>SAMPLE ACTIVITY: Find three to four peer-reviewed articles about AFNR trends and summarize each article in a paragraph or less.</i></p>	<p><b>CS.01.01.02.b.</b> Analyze current trends in AFNR systems and predict their impact on local, state, national and global levels.</p> <p><i>SAMPLE ACTIVITY: Create a Power-Point presentation about five to seven AFNR trends and use visuals and graphs to display predicted trend impacts on local, state, national and global levels.</i></p>	<p><b>CS.01.01.02.c.</b> Evaluate and explain emerging trends and the opportunities they may create within the AFNR systems.</p> <p><i>SAMPLE ACTIVITY: Write a three-page reflection paper evaluating emerging trends and the opportunities they create within the AFNR systems. Cite at least three sources.</i></p>

## APPENDIX

### Agricultural Literacy and Exploration continued

<p><b>CS.01.03.01.a.</b> Summarize public policies affecting AFNR systems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Contact a local legislator to discuss public policies affecting AFNR systems and summarize the interview in a word document.</i></p>	<p><b>CS.01.03.01.b.</b> Analyze and assess at least two public policies that impact each AFNR system.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Write an analytical paper about two public policies from each AFNR system and include who the policy effects, when it was last updated and if it needs improvement.</i></p>	<p><b>CS.01.03.01.c.</b> Evaluate a public policy within AFNR systems and defend or challenge it.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Develop a 15-minute presentation with visuals to defend or challenge a public policy within an AFNR system.</i></p>
<p><b>CS.01.03.02.a.</b> Identify influential historical and current public policies that impact AFNR systems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Read and print three to four peer-reviewed research articles about current and historical public policies affecting AFNR systems.</i></p>	<p><b>CS.01.03.02.b.</b> Create and propose a hypothetical policy that will impact current AFNR systems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a hypothetical policy that will impact an AFNR system and include who the policy aims to help and tangible improvements the policy will create.</i></p>	<p><b>CS.01.03.02.c.</b> Create a plan for implementing a new public policy that will positively impact AFNR systems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a timeline and include the step-by-step process of setting policy agenda, formulating policy, and adopting policy.</i></p>
<p><b>CS.02.02.01.a.</b> Identify and summarize the components within AFNR systems (e.g., Animal Systems: Health, Nutrition, Genetics, etc.; Natural Resources Systems: Soil, Water, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a Power-Point containing all AFNR systems and include their smaller components with visuals.</i></p>	<p><b>CS.02.02.01.b.</b> Assess components within AFNR systems and analyze relationships between systems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create an organization web with descriptions to identify the relationships between components of each AFNR system.</i></p>	<p><b>CS.02.02.01.c.</b> Devise and implement a strategy for explaining components of AFNR systems to audiences with limited knowledge.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Use visuals such as graphs, charts and pictures to explain the different components of AFNR systems.</i></p>
<p><b>CS.02.02.03.a.</b> Examine and summarize the components of the agricultural economy (e.g., environmental, crops, livestock, etc.).</p> <p><b>SAMPLE ACTIVITY:</b> <i>Create a visual presentation highlighting all components of the agricultural economy. Include short descriptions for each component.</i></p>	<p><b>CS.02.02.03.b.</b> Assess the economic impact of an AFNR system on a local, state, national and global level.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Read and print a peer-reviewed article containing information about the economic impact of a specific AFNR system for the local, state, national and global levels.</i></p>	<p><b>CS.02.02.03.c.</b> Evaluate how positive or negative changes in the local, state, national or global economy impacts AFNR systems.</p> <p><b>SAMPLE ACTIVITY:</b> <i>Write a three to five-page research paper discussing the impact of positive and negative changes in the economy on AFNR systems.</i></p>

## APPENDIX



# SUPERVISED AGRICULTURAL EXPERIENCE (SAE) AGREEMENT

**SAE** is a student-led, instructor supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to your career plan of study.

This agreement must be completed for all **Placement/Ownership Immersion SAEs**. Its intent is to define the scope of the experience, responsibilities and roles and identify any safety issues to address.

**A.** This agreement is in effect for the \_\_\_\_\_ school year.

- 1. Description of SAE:** (List all roles and responsibilities the student will have. Be as specific as possible.)
- 2. Resources and materials:** (List items that will be required for the SAE and note who (e.g., student, teacher, parent/guardian, employer) will provide the items.)
- 3. Profit/Loss Responsibility:** (If the experience includes the potential for a profit or loss, describe who will receive the profit or incur the liability.)

**B. SAE Risk Assessment Results:** (Student, guardian, teacher and employer will complete the *Safety in Agriculture for Youth SAE Risk Assessment* and include findings and action items here.)

**C.** [Add school district specific or employer specific requirements here.]

### SIGNATURES

Student

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Parent/Guardian

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Agriculture Instructor

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Employer or Mentor

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## APPENDIX



# SUPERVISED AGRICULTURAL EXPERIENCE (SAE) TRAINING PLAN

**SAE** is a student-led, instructor supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to your career plan of study.

This agreement must be completed for all **Internship Immersion SAEs**. Its intent is to define the scope of the experience, knowledge and skills to be developed, responsibilities and roles and safety issues to address.

**A.** This agreement is in effect for the \_\_\_\_\_ school year.

- 1. Description of intern's role and responsibilities:** (List all roles and responsibilities the student will have. Be as specific as possible.)
- 2. Learning outcomes:** (Define the knowledge and skills that will be targeted for development during the internship.)
- 3. Method of supervision:** (List the primary contact(s) who will provide on-site supervision, coaching and evaluation of the intern.)
- 4. Resources and materials:** (List items that will be required for the SAE and note who (e.g., student, teacher, parent/guardian, employer) will provide the items.)
- 5. Performance evaluation:** (Describe how and when the student will be evaluated during the internship.)
- 6. Compliance with Child Labor Requirements in Agricultural Occupations Under the Fair Labor Standards Act (Child Labor Bulletin 102)** (If the student placement is in a Hazardous Occupation, confirm that the placement documentation meets the requirements for Student-Learner Exemption from Hazardous Occupations Orders (HO/As) in Agriculture.)
  - a. The student-learner is enrolled in a course of study and training in a vocational education training program in agriculture under a recognized state or local educational authority or in a substantially similar program conducted by a private school.
  - b. Such student-learner is employed under a written agreement which provides the following:
    - i. That the work of the student-learner is incidental to the training.
    - ii. That such work shall be intermittent, for short periods of time, and under the direct and close supervision of a qualified and experienced person.

## APPENDIX



### ***SUPERVISED AGRICULTURAL EXPERIENCE (SAE) TRAINING PLAN CONTINUED***

- iii. That safety instruction shall be given by the school and correlated by the employer with on-the-job training.
- iv. That a schedule of organized and progressive work processes to be performed on the job shall have been prepared.

**B. SAE Risk Assessment Results:** (Student, guardian, teacher and employer will complete the *Safety in Agriculture for Youth SAE Risk Assessment* and include findings and action items here.)

**C.** [Add school district specific or employer specific requirements here.]

#### **SIGNATURES**

Student

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Parent/Guardian

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Agriculture Instructor

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Employer

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## APPENDIX



# SUPERVISED AGRICULTURAL EXPERIENCE (SAE) BUSINESS PLAN

**SAE** is a student-led, instructor supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to your career plan of study.

A Business Plan must be completed and approved for all **Entrepreneurship and School-Based Enterprise Immersion SAEs**. Its intent is to define the scope of the business and clarify responsibilities and roles and identify any safety issues to address.

**A.** This **Business Plan\*** is in effect for the \_\_\_\_\_ school year.

- 1. Business Description:** (Describe the overall goal and unique value proposition of your business. List the products and services you will provide and how they meet a need in the marketplace.)
- 2. Market Analysis:** (Present the findings of your market research and analysis. This section should highlight your industry knowledge and define your primary target market.)
- 3. Competitor Assessment:** (Summarize findings on competitors to your proposed business. Identify any barriers you may face in entering the market.)
- 4. Marketing Plan:** (Outline your overall marketing and sales strategy. This section will answer the question, "How will you create a customer base?")
- 5. Operating Plan:** (Describe the organizational structure for the business. List all roles and responsibilities the student(s) will have.)
- 6. Financial Plan:** (Prepare financial projections that include an income statement, balance sheet, cash flow statements and expected capital expenditures.)

*\* Videos and tutorials on writing a business plan are available through the U.S. Small Business Administration.*

**B. SAE Risk Assessment Results:** (Student, guardian, teacher and employer will complete the *Safety in Agriculture for Youth SAE Risk Assessment* and include findings and action items here.)

**C.** [Add school district specific or employer specific requirements here.]

### SIGNATURES

Student \_\_\_\_\_

Parent/Guardian \_\_\_\_\_

Agriculture Instructor \_\_\_\_\_

## APPENDIX



# SUPERVISED AGRICULTURAL EXPERIENCE (SAE) RESEARCH PLAN

**SAE** is a student-led, instructor supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to your career plan of study.

A Research Plan must be completed and approved for all **Research Immersion SAEs**. Its intent is to define the scope of the research, clarify responsibilities and roles and identify any safety issues to address.

**A.** This **Research Plan\*** is in effect for the \_\_\_\_\_ school year.

**1. Type:** (Experimental, Analytical or Invention)

**2. Title of Research Project:** (Provide a clear and descriptive title for your research project.)

**3. Abstract:** (Present a summary of what you will be researching. Include why you are researching this topic or area and what you hope to discover.)

**4. Introduction:** (Summarize in two to three paragraphs the problem you are addressing or invention you are creating. Be sure to include the reason behind your proposed research. Explain why it is important and what you hope to accomplish by completing the work. This is also where you can include predictions about your potential outcomes.)

**5. Literature Review:** (In this section, highlight the findings of research by credible sources on the topic or issue in question. The literature review will provide proposal reviewers insights into what experts already know about the topic.)

**6. Methods and Results:** (Describe your hypothesis and proposed research methods. Be as descriptive as possible.)

**7. Discussion:** (In this section, include any potential weaknesses or complications you may face with your research.)

**B. SAE Risk Assessment Results:** (Student, guardian, teacher and employer will complete the *Safety in Agriculture for Youth SAE Risk Assessment* and include findings and action items here.)

**C.** [Add school district specific or employer specific requirements here.]

### SIGNATURES

Student

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Parent/Guardian

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Agriculture Instructor

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## APPENDIX



# SUPERVISED AGRICULTURAL EXPERIENCE (SAE) SERVICE LEARNING PLAN

**SAE** is a student-led, instructor supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to your career plan of study.

A Service Learning Plan must be completed and approved for all **Service Learning Immersion SAEs**. Its intent is to define the scope of the service, clarify responsibilities and roles and identify any safety issues to address.

**A.** This **Service Learning Plan\*** is in effect for the \_\_\_\_\_ school year.

- 1. Project Title:** (Provide a clear and descriptive title for your service project.)
- 2. Need:** (Present a summary of the need discovered, how it was identified and how the service will meet the need.)
- 3. Goals/Outcomes:** (List the goals and outcomes of the service activity. Describe a plan for evaluation at the end of the project.)
- 4. Learning outcomes:** (Define the knowledge and skills that will be targeted for development during the project.)
- 5. Plan:** (When and where will the service take place and who will be involved. List all roles and responsibilities student(s) will have.)
- 6. Resources:** (Describe financial, time and other resource needs for the project. Explain how these needs will be met.)

**B. SAE Risk Assessment Results:** (Student, guardian, teacher and employer will complete the *Safety in Agriculture for Youth SAE Risk Assessment* and include findings and action items here.)

**C.** [Add school district specific requirements here]

### SIGNATURES

Student

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Parent/Guardian

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Agriculture Instructor

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