NATIONAL FFA ORGANIZATION

A Guide for Middle School Agricultural Science Teachers

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Revision 2009

A Guide for Middle School Agricultural Science Teachers

Contents

The Agricultural Education Mission

Agricultural education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems.

The FFA Mission

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

The FFA Motto

Learning to do;

Doing to learn;

Learning to live;

Living to serve.

Acknowledgements

Agricultural science education teachers are our heroes. They are the ones that truly make a difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural science education. They prepare lessons that prepare young people to be successful in the educational pipeline. They introduce them to new academic concepts—challenging them to grow intellectually.

They hold high expectations for career exploration and preparation.

They develop leaders quietly and deliberately through activities and opportunities.

They find creative ways to reach young people that are struggling with esteem issues.

"I'm too fat.
I'm too thin.
I'm too dumb.
I'm lonely.
I only have one parent.
I'm a slow learner.
I don't know what I want
to be when I grow up."

The list goes on. Good teachers have heard all of these statements and they have pulled at their heartstrings and amplified their commitment to find a way to reach all of their students. They experiment with different ways of teaching and learning and using technology. They understand child development theory and understand that everyone learns differently—some are hands-on kinesthetic learners; other are visual "show me" learners; while others learn by audio—or listening eloquently. Then there are the multiple intelligences.

A good teacher understands how these modalities relate to each of their students and how they can tap into the wiring of the student's brain in order to reach them.

Most importantly, they recognize that every child is unique and special and has the capacity to succeed with the right guidance, tools, and high expectations.

We believe that agricultural science education middle-school teachers are special and unique too. And we need to be able to provide them with the right tools, resources and support to be successful. They are in classrooms across the country—both in rural and urban settings; with large and small class sizes; single or multi-teacher departments; and varying resources. This guide is written for you. We hope that new teachers will find it to be of value; or if you have an existing program, you may find some new tools that may be useful to you.

We want to hear from you. You are the experts. You live this every day. If you have suggestions, recommendations, or promising practices that you would like to share with your colleagues, please fill out the following evaluation and comment sheet.

The foundation of this project was the Middle Grade Agricultural Leader's Guide (National FFA Organization, 1996), which was produced by a national task force of agricultural educators.

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A letter from the National Advisor

Dear Colleagues,

I am very proud to have a daughter who teaches agriculture. When I talk to her, she reminds me why "we do what we do" every day. Simply, your students look to you for information and inspiration. Middle schoolers are at the developmental level that they want even more from you. They are curious, hungry for knowledge, willing to be engaged and want to be held to high expectations. They love learning in different ways, which is why the hands-on experiential nature of agricultural science education is appropriate for this age group. Even more importantly, they need teachers who are caring, creative and committed to their intellectual and personal growth.

We are in a time of accountability in education. I believe that agricultural science education is an important key to this accountability. When you think about what you teach and how you teach, it is not just about agriculture and the food, fiber and natural resource systems—it is a relevant context to teach math, science, reading and other core academic skills. Middle schoolers want to know the "whys" and the "whats." By building a strong agricultural science program, you can show them why understanding core concepts of math and science are important and necessary through the study of plant and animal science; aquaculture, food safety; or mechanics. The list goes on. And by the way, don't forget about all of the opportunities to practice leadership through teamwork, collaboration and effective communication through supervised agricultural experiences and FFA activities.

Yes, this is what you do every day and I am proud that you have made a commitment to be a part of the agricultural science education family. Whether you are just starting a program or are a master teacher, please remember that you make a difference in the lives of your students every day.

Thank you and good luck.

Sincerely,

Larry Case
National Advisor

GUIDE ?

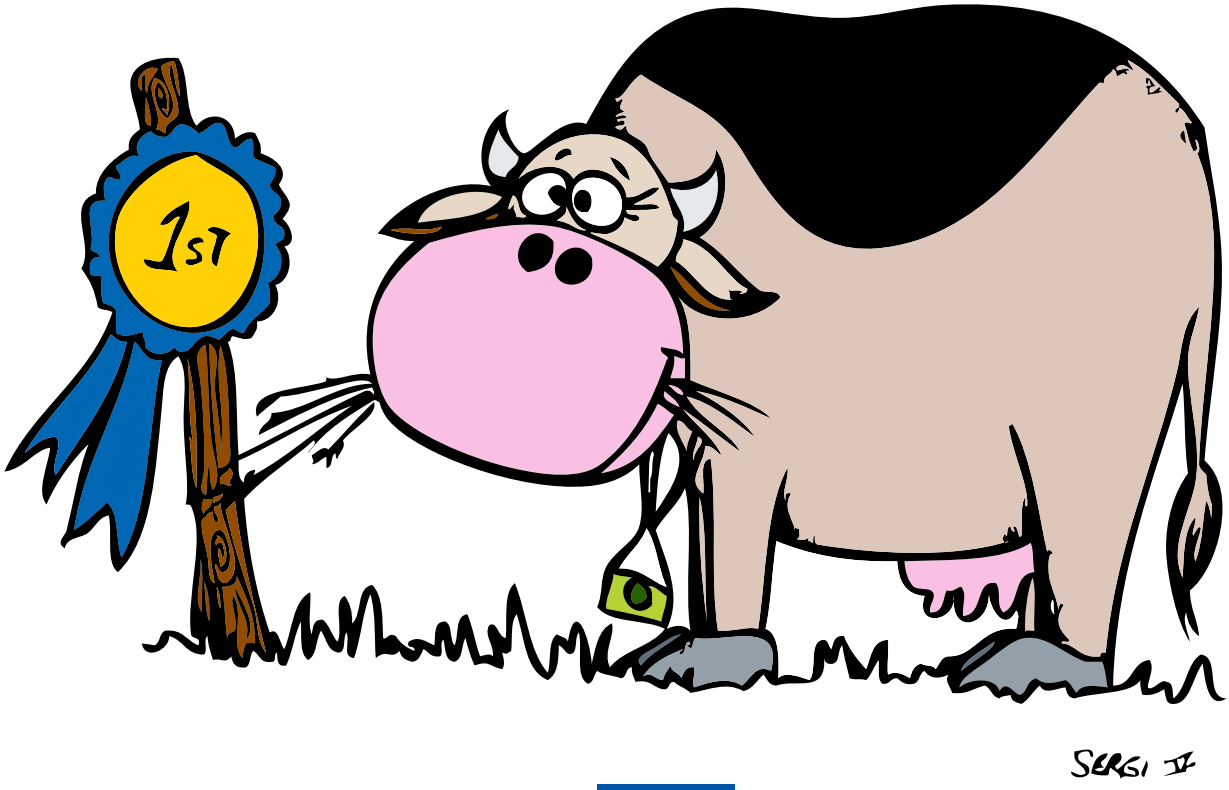
How to Use This Guide

This guide targets middle school agricultural science education teachers and their programs, from new teachers to master teachers. There is information to help a beginning teacher start a program as well as ideas to improve or rejuvenate current programs. It represents the best thinking from teachers like you on what makes middle school agricultural science education programs successful.

Chapter one talks about why agriculture and agricultural science education is important to teach at the middle school level. Chapters two through three highlight the complexity of middle school youth and the components and structure of middle school programs. Chapter four begins the transition to middle school agricultural science education programs. It introduces the concept of the integral model of agricultural science education and the seven keys to local program success. These keys then become the organizing framework for the rest of the guide, with a chapter dedicated to each one of the keys. We hope that this will make it a quick and easy reference that will come in useful for years to come.

The resource section includes a range of resources that will enrich your library of reference materials. The annotations will help be a time saver as you search for additional education resources to enrich your middle school program. Finally, if you need some more ideas on how to introduce agriscience into your curriculum, there are a list of suggested activities that will engage and excite a range of students during the middle school years.

Where possible, we have tried to create a one-stop middle school shop for your agricultural science education program!



CHAPTER 1

Why Agriculture and Agricultural Science Education?

Where Do Groceries Come From?

More and more children do not have even a simple understanding of agriculture or even the basic concepts of food, fiber and natural resources in this country. We have become so far removed from the food chain that even adults struggle with answering the simple question asked above: Where do groceries come from? Yet every person has a vested interest in agriculture and its future. Agriculture feeds us—okay, the world! It keeps us warm through clothing and alternative fuel; it provides shelter; and is part of a delicate ecosystem that we must all take care of for future generations.

This leaves a tremendous opportunity for agriculture teachers to reach young people and teach them about agricultural literacy. But a good teacher knows that they can do so much more than that. Agriculture is an amazingly rich context for teaching math, science and reading that is engaging and dynamic for middle school students. Middle school students are hungry for rigor and relevance. Math and science becomes important if they are a vehicle to create a healthy chemical balance in the soil so plants can grow; or ensuring the right nutritional supplement for the classroom animals to be healthy and vibrant. Students need to be able to read, research, analyze and record science projects as part of their classroom and laboratory work; or if they are planning a community service project as part of their FFA responsibilities that require surveys, scientific analysis or landscaping design. All of which require mastery of basic academic concepts! This is all about agriculture.

A quality agriculture education program does not stop there. In addition to agricultural literacy with embedded academic core-content achievement, we expose young people to a range of careers

within agriculture. We have documented 300 careers, but the field is constantly changing. Do we honestly know what opportunities will be available to our students in the next decade? We can make some educational guesses, but we do know that our most important role in preparing the next work- force generation to be critical thinkers and problem solvers, with strong academic skills that can transfer to a variety of situations.

But wait—there's more! A quality agricultural science education also teaches premier leadership, personal growth and career success through agricultural science education. FFA is an important teaching strategy within agricultural science education. It provides opportunities and activities for students to practice life skills such as teamwork, communication and more. Talk about transferable skills!

So when your administrators ask "why agricultural science education?" do not sell your program short. Remember:

- Agricultural literacy
- Context for academic skill development
- Career exploration
- Leadership, personal growth and career success

CHAPTER 2

Who are Middle School Students?

How many of us look back at the middle school years and wonder how we survived? At the same time, it evokes warm memories. It is a time of trust and intellectual exploration; it is a time of physical changes and emotional peaks. Understanding contrast is the key, and a good teacher knows how to find the balance within all of it.

Middle school students are early adolescents that progress through a host of physical, emotional, social and cognitive changes. Early adolescence, the stage of life between childhood and adolescence, is usually thought of as the ages of 10 to 14 or 9 to 15. It's an exciting, sometimes scary time in the life of a child-growing-into-an-adolescent because of the major changes that take place during these years. Early adolescents are interested in learning, full of energy and ready to conquer the world, if given the chance. They may also be distracted, unkind and apathetic. Given the tremendous changes middle grade students experience as they move from childhood to adolescence, their range of emotions and behaviors is understandable.Within three to four years, most middle grade students go through more changes than at any period other than the first year of life, including:

Physical Changes:

Puberty is the key to the physical changes in early adolescence. Bodies begin to change, and kids begin to see themselves differently! Girls go through growth spurts of between two and six inches a year. In general, hormonal changes begin about two years later for boys, who go through growth spurts of up to six inches a year.

Emotional Changes:

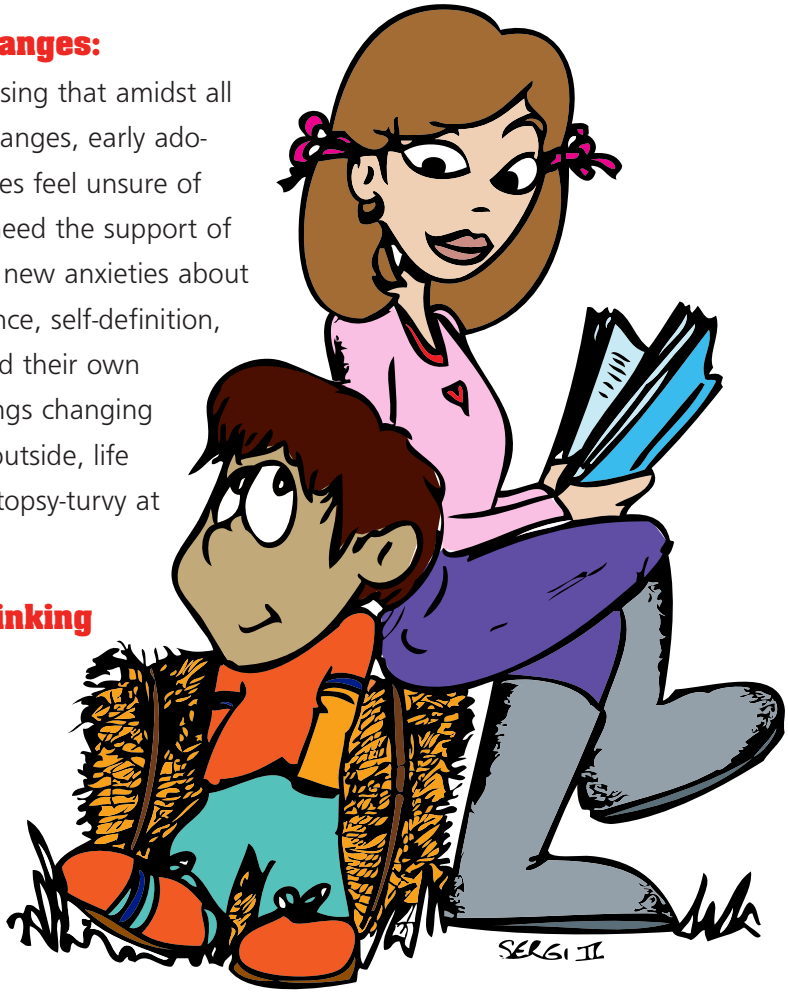
It's not surprising that amidst all of these other changes, early adolescents sometimes feel unsure of themselves and need the support of adults. There are new anxieties about physical appearance, self-definition, societal issues and their own futures. With things changing both inside and outside, life can seem pretty topsy-turvy at times.

Cognitive/Thinking Changes:

At the same time physical changes are taking place, early adolescents are beginning to develop new ways of thinking. They're no longer caught in the "here-and-now" of childhood; they're beginning to develop higher-level thinking skills that allow them to think about ideas, anticipate and begin to see a personal future. They may begin to question old beliefs and explore new ones, as well as to criticize the adults in their lives. They are moving beyond "what is" to "what could be."

Social Changes:

Social changes are brought about because of their body changes. Peers become increasingly important during these years, as adolescents gradu-



ally "wean" themselves from parents and to independence. This is also the beginning of exploring and learning about male-female relationships.

During this stage of change, adolescents need to focus on the following in order to be successful and well-balanced human-beings.

- Increase positive feelings about themselves and who they are
- Increase positive feelings about their changing bodies
- Become more responsible and develop decision-making skills
- Become increasingly independent
- Develop better interpersonal communication skills
- Begin to think about a plan for the future

During these years of great transition, middle school students are also asked to begin to identify a career choice, acquire the know- ledge they will need for high school, and accept increasingly responsible roles in the family, school and community. Agricultural science courses offer hands-on opportunities to tie concrete, real-world learning with broader personal and societal concerns. Middle school students need to learn lessons not imparted through traditional classroom settings, like interpersonal skills, self-concept, social responsibility, decision-making and respect for differences among people of various backgrounds. The diversity of topics and issues related to agriculture, as well as its cross-disciplinary nature, make agricultural science a "natural" for helping middle school students develop these skills.

Involvement in an agricultural science program can help middle school students through the maze of occupational, school, physical, emotional and social demands.

Middle school students have characteristics and needs that are distinct from those of older students. Young people undergo more rapid and profound personal changes during the early adolescent years than at any other period in their lives. A range of physical, emotional, social and intellectual developments sets the stage for unique opportunities and challenges in working with middle school students. As a result, teachers need to treat them differently.

CHAPTER 3

An Exemplary Middle School Program

Finding commonalities within middle school programs can often be challenging. Both the names and the grade range of programs can vary. For example, there are "middle schools" which usually consist of grades 6-8, but may also be comprised of grades 5-7, 6-7, 5-8, and 7-8. There are "junior high schools" which usually consist of grades 7-9, but may also be comprised of grades 5-9, 6-9, and 8-9. Some states do not have middle school programs at all. However, most programs consist of grades 6-8. (For the sake of consistency through this guide, the term middle school will be used.)

Regardless of name or structure, a quality middle school program has:

- curriculum that is challenging, integrative, and exploratory
- varied teaching and learning approaches
- assessment and evaluation that promote learning
- flexible organizational structures
- programs and policies that foster health, wellness, and safety
- comprehensive guidance and support services

The National Middle School Association (NMSA) has identified the following essentials for educational programs that serve the developmental needs of early adolescents:

- educators committed to young adolescents
- high expectations for all
- curriculum that is challenging, integrative and exploratory
- an adult advocate for every student
- family and community partnerships
- a positive school climate
- programs and policies that foster health, wellness and safety

In addition to these essentials, the NMSA has identified the five components of an exemplary middle school program.

1. Interdisciplinary Teaming

This is a core of teachers from across disciplines who work with the same group of students. This teamwork helps create a positive, consistent and flexible psychosocial environment and provides a structure to deliver a balanced curriculum. Teachers can respond quickly to individual student needs though collaboration. They can design units that are integrated across the disciplines to increase relevance and deepen understanding. Partnerships also prevent burn-out and can create coaching relationships as part of professional development.

Currently, middle level schools with a 6-8 grade configuration comprise 59% of all middle level schools, followed by 7-8 (17%) and 5-8 (10%) grade configurations. Where do you fit?

2. Advisory Programs

Small learning communities usually consisting of a small group of students (usually 20 or fewer) assigned to a teacher, administrator, or other staff member for a regularly scheduled meeting to discuss topics of concern to students. This creates a safe environment to develop close, trusting relationships between students and adults and to increase engagement with learning and feelings of positive self-esteem, belonging and other adolescent issues.

3. Varied Instruction

All students do not learn the same way. In addition to addressing differ-

ent learning styles, effective teaching occurs in a contextual, experiential learning experience that focuses on real-life, relevant issues to the student. It is also about active problem solving, collaboration, cooperation, and character.

4. Exploratory Programs

This is time to capitalize on curiosity and provide students opportunities to explore a range of academic, career and technical and recreational subjects for career options, community service, enrichment, and enjoyment.

5. Transition Programs

So much change in going on inside the students, that external change can be difficult to manage. Focus on creating a smooth change of schools for new middle schoolers and from middle school to high school. Eighty-eight percent of public school students begin the middle grades in a new school, a transition which may overwhelm their coping skills. Arrange for school visits; meet with teachers and administrators from each of the schools to develop transition plans. The goal is a seamless transition to pipeline schools.

References:

Camp, W.G., Broyles, T., and Skelton, N.S. (2002). A national study of the supply and demand for teachers of agricultural science education in 1999-2001.

Blacksburg, VA: Virginia Polytechnic Institute and State University.

National FFA Organization. (2002). FFA in the middle grades. Indianapolis, IN: National FFA Organization.

National Middle School Association (2003). This we believe: Successful schols for young adolescents. Westerfield, OH.

How am I doing?
Do I have all five components within my school?
What do I need to do next?

Component	Yes	No	Key Questions	Plan of Action
Interdisciplinary			Who are my partners? Is this a formal or informal team? Do I have the support of my administrator?	
Advisory Programs				
Varied instruction			Do I understand my students? Am I addressing their learning styles? Have I created an active, engaging classroom environment? Is it relevant to my students?	
Exploratory			Are my students being exposed to as many opportunities as possible? How can I broaden their awareness and understanding?	
Transition programs			Are we committed to a seamless transition for our students? Do we have a good working relationship with our pipeline schools? Are there opportunities to do more sharing or expose students?	

CHAPTER 4

What is Middle School Agricultural Science Education?

In 2001, exploratory agricultural science programs were present in 13 states (Camp, Broyles, and Skelton, 2002). During the same year, there were 573 middle school agricultural science teachers and another 1491 who taught both middle and high school. These numbers indicated that over 18 percent of all agricultural science teachers work with middle school students. Student enrollment figures estimated that over 70,000 middle school students were enrolled in agricultural science and approximately 30,000 of those students were FFA members (National FFA Organization, 2002).

Teaching agricultural science to middle school students can be fun, stimulating and very rewarding. Middle school agricultural science courses can assist students to explore their career options, improve their scientific knowledge, and improve agricultural literacy throughout the community. Middle school agricultural science courses can be added to an existing high school program, or developed into a separate program delivered strictly at a middle school.

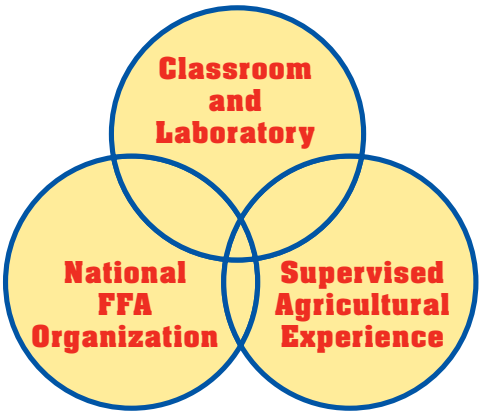
Although schools for middle school students reflect a variety of structures and educational philosophies, there is a growing trend toward middle schools that aim to serve the "whole student" through interdisciplinary team teaching; health and social services; student activities; extended class periods/block periods; and personal connections between students, teachers, parents, and the community.

Agricultural science clearly can play an important role in such a setting. First, it focuses on subject matter that interests middle school students—plants, animals, the environment, mechanics and careers. Second, its many hands-on lessons offer substantial opportunities for interdisciplinary learning, personal skill development, teamwork, and one-on-one connections with the teacher. Third, agricultural science teachers are trained to work with the "whole student" through applied academic concepts, experiential learning, individualized instruction, and leadership/personal development through the National FFA Organization. This combination of subject matter, approach and teacher training offers middle school students unique opportunities to address key issues and concerns while progressing through their many developmental changes.

The strength of agricultural science programs is the integration of classroom and laboratory instruction, supervised agricultural science education (experiential learning) and FFA (leadership). This integral model of agricultural

science education is what sets it apart from other middle school and high school programs. The over-arching philosophy is that these three components are not choices of instruction—but required teaching strategies that effectively engage and educate students across the teaching modalities. This model is what makes agricultural science education unique and strong in educational content and delivery to a range of student learners.

Content is typically introduced in classrooms and laboratories through a variety of teaching techniques, often involving a hands-on, experiential focus.



Agricultural science programs then have two vehicles for applying agricultural content that supports that classroom curriculum: the National FFA Organization and Supervised Agricultural Experience (SAE).

This is the representation of a successful agricultural science education—but it is not all that is required for local program success. In fact, there are seven keys to local program success (LPS). The first three are classroom and laboratory instruction, FFA and SAE. These seven keys are so important to the success of all middle school agricultural science education that there will be chapters of this guide dedicated to each key. Within each chapter there will be a "quick checklist" for you to review to ensure that you have all of the ingredients for success.

The remaining LPS keys are:

Partnerships: Becoming a "Manager of Resources"

Becoming a "manager of resources" allows you to focus your time and attention on the bottom line—facilitating learning. Chapter 10 presents tips on how to build partnerships and mobilize volunteers within the school and community who actively support and share responsibility for the program.

Marketing: Charting Your Course for Success

The key to managing your workload and creating a successful agricultural science education program is focusing on those activities that are important to your customers. Chapter 9 teaches you how to use innovative tools to identify and meet your key customers' needs, promote your program, manage an ever-increasing workload and plan your program's long-term growth.

Professional Growth: Revitalizing Yourself and Your Program

Growth is necessary for teachers and programs to stay abreast of changing times. Competent and technically qualified agriculture teachers are the core of a successful program. Chapter 11 presents tips on how you can stay professionally prepared and motivated to teach your students. Find out how you can revitalize yourself and recruit students to become teachers and keep the profession strong.

Community-Based Program Planning: Working the Vision

Planning the local program is most likely the last thing on your mind after a busy day. Through the three program planning phases—visioning, strategic planning and implementation—you can work with key partners to develop an agricultural science education program that meets future industry and occupational demands.

The Importance of Teaching

These models are important, but the success of a middle school program relies on a quality, committed teacher. Teaching is the foundation of an agricultural science program. Effectively teaching agricultural science to middle school students involves: selecting and organizing course content, developing lesson plans, selecting curricular materials and selecting learning activities.

As discussed earlier, middle school students undergo a host of physical, emotional and cognitive changes. Working closely with students as they undergo these changes can be challenging. Teaching middle school agri-

cultural science may not be for everyone. The most effective middle school agricultural science teachers are:

- fun
- flexible
- organized and time-efficient
- imaginative
- tolerant of ambiguity
- consistent in helping every student
- encouraging
- kind to students
- patient
- genuinely concerned about students
- personable
- able to laugh at themselves
- sensitive to fairness and justice
- optimistic
- enthusiastic
- accepting of students

Thinking About Starting a New Agricultural Science Program: Checklist

If agricultural science is not currently taught to local middle school students, agricultural science teachers can explore the possibilities by:

Research the current goals, structure and course work at other local middle school agricultural science education programs.

Check out the ffa.org to see the types of activities and resources that are available to agricultural science education teachers at www.ffa.org.

Understand the integral model of agricultural science education and the commitment to classroom, FFA and SAE as powerful teaching strategies that promote whole student development.

Invite middle school teachers, administrators and parents to help brainstorm opportunities to introduce agricultural concepts through:

- existing courses
- elective agricultural science courses
- required agricultural science courses
- block of time segments
- mini-courses with an agricultural focus
- student activities

Contact your state leader for agricultural science education to discuss the possibilities and requirements. They may also have promotional materials that you can share with administrators.

Create potential content outlines and an implementation plan for middle school agricultural science. Crosswalk them to academic standards.

Demonstrate to middle school administrators and other decision makers the value of agricultural science for their students and their school by showing the potential contribution to academic achievement.

Students can be your best sounding boards and advocates. Ask them about their interest and engage them in visioning and planning.

Ask business and community leaders for their input. They will be critical for SAE activity support; they can also be special speakers or even provide classroom resources.

Anticipate resistance from administrators, based on cost, master schedule, and the preconceived images of agricultural science by doing your "homework"!

Establishing a Middle School Agricultural Science Program

Once you do this pre-planning and find that a middle school agricultural science program would support the mission of your school and serve your students, the next step is establishing your program.

CHAPTER 5

The First Key: Classroom and Laboratory

Agricultural science courses taught in middle schools vary in grade level and length of course. Course content usually consists of basic agricultural literacy, basic agricultural science skills, and career exploration. Grade levels vary from sixth to eighth grade, and unlike some high school agricultural science programs, a middle school agricultural science class is usually composed of students from the same grade level. The grade levels to which agricultural science courses are taught vary from state to state and sometimes from school district to school district. A few states and districts have embraced the concept of middle school agricultural science and have well-established programs that consist of sixth, seventh and eighth-grade students. While other states and districts offer limited courses to eighth grade and sometimes seventh grade students. There are some states and districts that do not offer middle school agricultural programs at all.

In the states and districts that offer middle school agricultural science courses, the length of those courses varies greatly, and often consists of some sort of rotation or wheel with other courses. The length can be as short as 10 days, or as long as an entire school year. Occasionally, middle schools may opt for a combination of course lengths.

An example of the length of a middle school's agricultural science course offerings is presented on the next page. Sixth-grade students

QUICK CHECKLIST: INSTRUCTION

- ❑ **Spend time on planning at all levels, including the lesson, activity and program levels.**
- ❑ **Create an instructional program based on student interests and agricultural career opportunities.**
- ❑ **Make "real-world" connections for learners.**
- ❑ **Engage all students across all ability levels.**
- ❑ **Care about students and be an advocate for their needs.**
- ❑ **Accept and recruit students with diverse ideas, abilities, backgrounds and cultures.**
- ❑ **Become part of your community on a personal level. Show a vested interest in the community.**
- ❑ **Stay up-to-date on technology. Consider the equipment you use in the class room and the agricultural technology you teach about as class content.**
- ❑ **Be a student of teaching. Keep learning**

begin the school year with a rotational wheel, during which they rotate to a variety of courses offered at the school, spending approximately 11 days in each course. Based on their interests, they select two courses to come back to during the third and fourth nine-week grading period. Seventh-and eighth-grade students select two courses for the entire school year, spending 18 weeks (1/2 the school year) in each.

Middle School Agricultural Science Course Content

Middle school agricultural science courses expose students to agriculture through a broad exposure to agricultural content that includes agricultural literacy, consumer agriculture and career exploration. The specific content included in each course is developed by the agricultural science teacher, utilizing state and district standards, if available. Generally, a sixth-grade agricultural science course will focus on agricultural literacy and a broad exposure to agriculture. A seventh grade agricultural science course will be a little more focused on agricultural content, often from a consumer perspective. An eighth-grade agricultural science course is even more focused, involves more technical content and many hands-on activities, and includes some career exploration.

Some examples of middle school agricultural science course content include:

	GRADING PERIOD			
GRADE LEVEL	1st 9 Weeks	2nd 9 Weeks	3rd 9 Weeks	4th 9 Weeks
6th Grade	Rotational Wheels — Every Sixth grade student rotates between 8 courses (approximately 11 days each)			
7th Grade	18-Week Course		18-Week Course	
8th Grade	18-Week Course		18-Week Course	

Middle School A

Grade levels offered: 7th and 8th

Courses offered: exploratory agriculture (one quarter, grade 7); integration of agricultural sciences (one quarter, grade 8)

Course content: forestry, wildlife, aquaculture, small animals, FFA, career exploration, dairy products, agriculture communications, marketing, lawn-mower safety, leadership, houseplant study, greenhouse plant management, horse sciences, community organizations, landscaping. Exact topics covered in any quarter are determined by a survey of and goal-setting by students

Middle School B

Grade levels offered: 8th

Course offered: agricultural science and FFA, 36 weeks (full-year course for science credit)

Course content: agricultural leaders FFA, job ethics, job-search skills, fish and wildlife science, earth science, animal science, plant science/horticulture, aquaculture

Middle School C

Grade levels offered: 7th and 8th

Courses offered: orientation to agriscience, technology and environmental resources (6 weeks, grade 7); exploration of agriscience, technology and environmental resources (one semester, grade 8)

Course content: grade 7-world, U.S., state and county agriculture; plant propagation; growing strawberries; legumes; milk and milk products; seed experiment; food safety; meat selection; beef breeds; dairy calves; hogs and pork products; careers; FFA; grade 8-food chains; gardening; hydroponics; flower arranging; tractor driving; careers; leadership; pond ecology; fertilizers

Middle School Agricultural Science Facilities and Equipment

Conducting a middle school agricultural science program requires facilities and equipment above what other middle school courses (i.e., math, history, etc.,) call for, but not

as extensive as the facilities and required equipment of a high school agricultural science program. First, a multi-function classroom with seating for 35 to 40 students is required. The class-room should have flexible seating to allow for multiple arrangements, depending on the task at hand. The type of seating (multi-student tables, single student tables, chair-desks) is at the discretion of the agricultural science teacher. The classroom should also provide adequate storage for student materials (i.e., notebooks, small projects, etc.), storage of teaching materials (i.e., texts, reference materials, microscopes, etc.), and a cleanup area with sink. The size of the classroom should also allow space for in-class demonstrations by the teacher and ongoing experiments with fish tanks, grow labs, incubators, or other teacher-chosen activities. Sufficient wall space with multiple bulletin boards is required to display student work, along with other posters and materials to provide a stimulus-rich learning environment. The classroom should also be equipped with audio-visual equipment for teaching, such as a computer with projector, overhead projector, TV with VCR and DVD, smart board, and other equipment at the discretion of the agricultural science teacher. Beyond the classroom, other facilities present in many middle school agricultural science programs include computer labs, land laboratories (including garden plots, greenhouses, and small animal facilities), and agricultural mechanics labs for small project construction.

Planning for Instruction

Planning for instruction in a middle school agricultural science course should begin with the needs of students, the school and the local community. If available, state or district course standards will guide planning. As mentioned previously, middle school agricultural science courses provide a broad exposure to agricultural content that includes agricultural literacy, consumer agriculture, and career exploration. This is often done through study of:

- agricultural research
- biotechnology
- plant sciences
- animal sciences
- food science
- agricultural processing and marketing
- environmental sciences
- career exploration
- leadership and communication

Planning for instruction of a condensed agricultural science course offered as part of a wheel, such as the 11-day rotation for sixth-grade students discussed in the previous chapter, offers a unique opportunity to expose a large number of students to the agricultural industry .

Day 1: Class Orientationand Overview of the Agriculture Industry

Students are oriented to classroom procedures, requirements and policies. A pre-test is given to determine prior knowledge. The con-tent focuses on the importance of agriculture to the county, state, and then to the country. Current facts and figures are used to emphasize the economic impact of agricuture.

Day 2: Horticulture Industry and Plant Propagation Lab

Landscaping and lawn maintenance are included because homeowners need basic knowledge in these areas. The fact that there are plenty of urban career opportunities in horticulture is also emphasized. In the plant propagation lab, students propagate a plant by using softwood cuttings, which they will later take home.

Day 3: Self Improvement and Goal Setting Activity

Thinking about making yourself better is not specific to agriculture, but it is included to help make better citizens out of these students. The goal-setting activity starts with self-assessment and then concludes with setting specific goals to address their future plans.

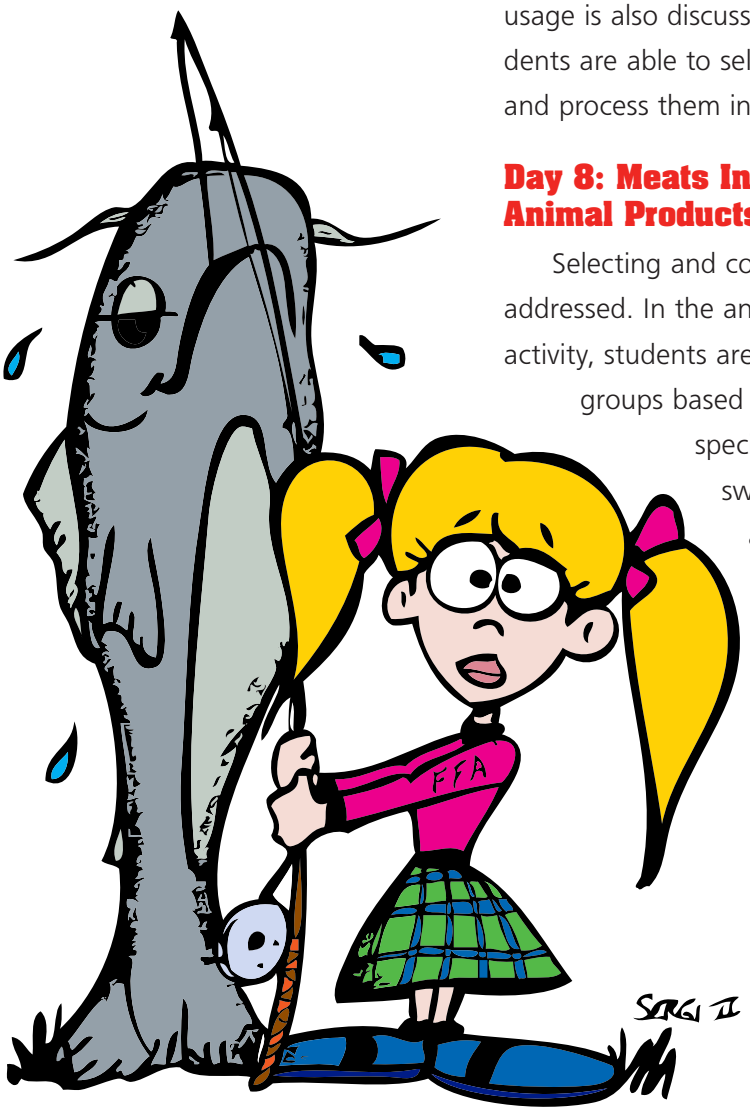
Day 4: Large Animal Industry and Butter Lab

The importance of large animals, the role of ruminants and the ani-

mal rights/animal welfare issue are discussed. In the lab, students make butter from cream and then have the opportunity to taste it.

Day 5: Leadership Development and FFA Activity

A brief history of the leaders that have ties to American agriculture is covered, including many of our founding fathers. In the FFA activity, students learn some basic knowledge about FFA and produce an FFA emblem to take home.



Day 6: Aquaculture Industry and Aquaculture Lab

Aquaculture is included to show some of the non-traditional aspects of agriculture. Information on ornamental fish and food fish is covered. The lab is conducted at the aquaculture lab, where catfish are caught, measured and released.

Day 7: Citrus and Vegetable Industry and Orange Juice Lab

Topics covered include harvesting, transporting and marketing. Pesticide usage is also discussed. In the lab, students are able to select their oranges and process them into orange juice.

Day 8: Meats Industry and Animal Products Activity

Selecting and cooking meat is addressed. In the animal products activity, students are broken into five groups based on the livestock species of cattle, swine, horses, sheep and poultry. Each group is instructed to come up with as many products as they can that come from their species and report them to the class.

Day 9: Agronomy Industry and Popcorn Lab

The importance of corn, soybeans and other agronomic crops is discussed. The students generate a list of as many products as they can that come from corn. In the lab, students make popcorn using several different cooking methods and then compare the taste differences

Day 10: Careers and Agricultural Careers Activity

Students are instructed on the importance of starting to think about what career they may want. In the careers activity, students are broken into groups that come up with a list of agriculture careers. Their list is reported to the class, where an overall list is made. How to prepare for each of the careers is discussed.

Day 11: Review/Wrap-Up and Defining Agriculture Activity

The previous ten days are summarized. Students are given a post-test to assess knowledge gained. As a class, a definition of agriculture is developed. Students will collect all of their materials to take them home.

Interdisciplinary Approaches

Many middle schools use interdisciplinary themes or units to tie together student learning across subject areas. Agricultural science generally fits well into such efforts and can add important depth and relevancy. Themes with strong agricultural components

include those related to:

- food
- environment
- space
- change
- the future
- global interdependence

Teaching Strategies

Middle school students respond to a variety of fast-paced, fun and meaningful learning activities. To maximize student learning and the enjoyment of the teacher and students, agricultural science teachers can:

- Break class periods into 15-20 minute segments and use a different instructional method for each.
- Use a variety of instructional methods and learning materials, including small-group work, individualized learning modules, hands-on activities, role plays, computers and audio-visual aids.
- Adapt instructional practices to individual student differences.
- Carefully plan student learning experiences.
- Structure instruction to add meaning and relevancy.
- Emphasize simple and highly focused hands-on learning tasks.
- Ask varied questions.
- Listen to and build instruction on student responses.
- Provide positive feedback to students.
- Continually evaluate both learning and teaching.
- Utilize initiative games at the beginning of the term to develop class cohesion and enhance the student/teacher relationship.

Middle School Agricultural Science Learning Activities

Successful middle school agricultural science teachers use the strategies mentioned above to develop meaningful learning activities for their students. A few examples of these are presented below (see Appendix A for additional activities):

- Coordinate with school officials to have students plan and create a landscaping project on the school grounds. Ask community members to lend expertise, assistance, materials and support.
- Have student pairs choose a local agricultural business, analyze its role in the local economy and create a brochure or flyer promoting its products or services.
- Conduct a chick growth experiment. Allow groups of students to prepare an environment (cage, light, feed, temperature, water) which they think will cause chicks to grow the fastest. Supply each group of students with three to six chicks. Students use balance beams to weigh chicks and record weight gain weekly. Analyze results and form conclusions.
- Use food-science lab ideas such as making homemade ice cream, pickles or jam.
- Summarize student reports and presentations from each class rotation or grading period in a student-created agricultural science education newsletter. Distribute to parents, teachers, administrators and other students. Have a different group of students develop a new edition for each class rotation or grading period.
- Conduct seed sprouting or viability experiments. Allow students to choose environmental conditions which they think will cause the seeds to sprout the fastest (light vs. dark, cold vs. warm, etc.). Students prepare and plant seedbeds, and count seeds germinated daily and graph results. They then form conclusions about seed germination.
- Turn the classroom into a florist shop. Teach basic principles of floral design. Students make arrangements for special occasions. They must then calculate costs and a retail price.
- Use papier-mâché for environment-related lessons. Have students construct and label plant parts, or ask them to construct a miniature land project representing a desert, rain for-

est, plains or forested settings. Students identify wildlife that exists in that setting, and then create the habitat to support those animals.

- Have students complete an interview of individuals in the local agricultural community to determine their job, educational path to secure it, and then report it to class.
- Ask students to bring in a photo of their family pet or a magazine clipping of an animal, and then create a fact sheet about the animal's habits, needs and health history.
- Encourage students to create promotional materials during National FFA Week, National Farm Safety Week, National Fire Preven-tion Week, Agriculture Day, Nat-ional Volunteer Day, Earth Day, National Wildlife Week, etc. Ask area businesses to display the posters.
- Ask students to bring soil samples from home. Distribute soil test kits and have students test soils, record results, recommend ways to improve soil fertility and take home a report. Prepare to give lots of soil-related advice at the next parent-teacher conferences,as families see how agriculture relates to their everyday lives.
- Students calculate the percentage of sand, silt, clay and loam in a soil sample using a Mason jar, water and soil. Measure and calculate the percentage of each component.
- Introduce a food science unit by giving each student a small paper cup containing a mixture of a little water plus fungus, moss, mold or soil. Tell them the day's lesson will involve tasting fungus. Present information or an audiovisual about fungus. At the end of the period, distribute an actual "fungus product" students can sample—yeast bread, yogurt or doughnuts!

Leadership Development and Personal Growth

Agricultural science programs at both the middle and high school levels have long been associated with leadership development and personal growth of the students enrolled. Agricultural science teachers have an outstanding tool to help them accomplish this task– LifeKnowledge®.This set of instructional materials was developed by the National FFA Organization and contains more than 70 lesson plans developed specifically for middle school agricultural science students. Each lesson includes everything needed, including masters for transparencies, handouts and assessments. A sample LifeKnowledge lesson is in Appendix B.

www.ffa.org/lifeknowledge

Other leadership development and personal growth activities can be found in Appendix B.

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CHAPTER 6

The Second Key: Supervised Agricultural Experience

Supervised Agricultural Experience (SAE) programs are designed to extend the concepts taught in an agricultural science class through individualized student projects. The great benefit of SAE programs is the chance for students to focus on a specific topic they wish to learn more about. With the different types of middle school programs and rotational wheels, teachers may have to think creatively about SAEs and use as an instructional strategy. For example, some teachers and state leaders in agricultural science education believe that SAEs should be for career exploration purposes in order to avoid student burn-out or to prevent career focus that is developmentally too early for this age group. The key principle of SAE is that it is a student project, conducted under the supervision of the agricultural science teacher and the student's parents. The scope and duration of the project will vary greatly, depending on the individual student's goals as well as the time the teacher has with the student. The challenge is how to make it work during the school year (i.e., nine-week or eighteen-week course or other variation). This requires an understanding of the philosophy of SAE and a commitment to the educational value of SAE by the teachers, administrators and the parents

Middle School SAE Types

State SAE policies vary greatly in the types of SAE they recognize. It is important for agricultural educators to become familiar with any state policies and procedures concerning SAE programs. However, some common themes exist among the majority of philosophies that exist on SAE beginning with the recognition of four major SAE types: exploratory activities, agriscience research, entrepreneurial and placement. Also community service and improvement opportunities allows for short-term projects! Some states may recognize more or less than these four SAE types so it is important that you contact your state agricultural science education office.

QUICK CHECKLIST: SAEs

- ❑ **Plan flexible SAEs to meet your middle school curriculum needs and structure.**
- ❑ **Link SAEs to the curriculum and career exploration.**
- ❑ **Let students manage their SAEs.**
- ❑ **Document the SAE by using recordkeeping and analysis.**
- ❑ **Take an active role as supervisor of SAEs.**

Exploratory SAE Programs

Exploratory SAE programs are designed to allow students to further explore an agricultural concept covered in class. These could include, but are not limited to, agricultural literacy and agricultural careers. The topic could be decided by the student or assigned by the teacher. However, allowing students to select their own topic will provide greater motivation and ownership of the project.

With a topic selected, students are allowed to freely explore available resources to gain more insight. This could occur as research in the library, internet searches, inteviews with knowledgeable people, or other data collection methods. It is appropriate to provide some class time for this exploration.

The results of an exploratory SAE program can be presented in many ways. First, the student could prepare a written report, outlining their findings. Second, the student could prepare a visual representation of their findings, such as a poster. Third, the student could present an oral report to their class. A combination of these methods is also appropriate.

Exploratory SAEs Suggestions

- Developing a term paper on agricultural marketing
- Growing a small garden
- Touring an agricultural business
- Interviewing a health official and reporting on the ways that agriculture contributes to water and air pollution
- Attending an agricultural field day and reporting on your observtions
- Display different nails and/or fasteners
- Visiting a supermarket and identifying the various types of retail cuts of meat sold
- Constructing a display comparing various plumbing fixtures
- Attending a horse show and describing the different breeds represented
- Presenting a speech or demonstration on floral design to another group
- Charting the life cycle of different species of fish
- Preparing a paper on food science careers including salaries and educational requirements
- Interviewing the management and employees of an agricultural mechanics business and reporting on the types of decisions they make
- Observing and/or assisting an electrician
- Writing a college or university for information about careers offered in animal, soil, and plant science
- Assisting on a horse farm for one day
- Attending an agricultural career day
- Collecting pictures from magazines and newspapers on opportunities in a specific agricultural career area
- Collecting sample job applications from agricultural businesses
- Taking a personal inventory test to determine occupations of interest

Agriscience SAE Programs

Agriscience SAE programs are designed to allow students to scientifically solve a research problem related to agriculture. Research problems can be identified by the student or with help of the agricultural science teacher. Conducting an Agriscience SAE project involves following the scientific method:

- Identify the Problem
- State the Problem
- Formulate a Hypothesis
- Predict the Results
- Test the Hypothesis

As briefly discussed in the last chapter, the National FFA Organization has an official Agriscience Fair that is open to middle school students. Currently, projects are divided into five categories:

Biochemistry/Micro- biology/Food Science

This involves the biology of microorganisms such as bacteriology, virology, protozoology, fungi bacterial genetics and yeast. This area can also include the following: chemistry of life processes such as molecular biology; molecular genetics; enzymes; photosynthesis; protein chemistry; food chemistry; hormones, etc.

Environmental Science

The study of pollution (air, water and land) sources and their control. Other areas of ecology would be applied here.

Agriscience Research Suggestions

- Compare yeast fermentation techniques for converting sugars to alcohol
- Resistance of organic fruits to common diseases
- Effect of agricultural chemicals on water quality
- Effects of cropping practices on wildlife populations
- Compare nutrient levels on animal growth
- Research new disease control mechanisms
- Compare plant growth between hydroponics and conventional methods
- Effect of ultraviolet light on soil microbes
- Compare various tillage methods for energy efficiency
- Investigation of light energy sources

Entrepreneurship Suggestions

- Raising plants, fruits, or vegetables for sale
- Breeding animals to sell offspring
- Starting a small lawn mow
- Petcare service
- Terrariums

Zoology (Animal Science)

The study of animals including animal genetics, ornithology, ichthyology, entomology, animal ecology, paleontology, cellular physiology, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc.

Botany (Plant/Soil Science)

The study of plant life such as agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae, etc.

Engineering (Mechanical/ Agriculture Engineering Science)

This area includes technology and projects that directly apply scientific principles to manufacturing and practical uses such as mechanical, chemical, electrical, environmental engineering, etc.

Once complete, middle school students can present their agriscience SAE project through the National FFA Organization's Agri-science Fair, through their local school science fair, or to their agricultural science class. For more informtion, consult the Agriscience Handbook (National FFA Organization, 2000), www.ffa.org/documents/agsci_handbook.pdf.

Entrepreneurship SAE Programs

Entrepreneurship SAE programs involve student ownership of an agricultural enterprise. At the high school level, these projects can be very extensive, agricultural enterprises. However, at the middle school level, entrepre-

neurship SAE projects are often very small in scale and frequently consist of an animal project intended for exhibition at a fair or stock show, such as:

- poultry
- rabbits
- companion animals
- sheep
- goats
- swine
- cattle

Middle school entrepreneurship SAE projects are not limited to animals for exhibition. Any project that is owned by the student with the intention of earning money from that project, would fall in this category.

Placement SAE programs

Placement SAE programs are experiences in which students work under the direct supervision of an employer. These programs can be wage earning, usually at an hourly or salaried rate, or can be unpaid experiences doing work for family members or a business solely for the work experience. A major point of separation between wage earning placement and entrepreneurial programs is that the employer received the profit or loss, not the student. Unpaid placement programs can also cause confusion when compared to exploratory programs. Some major differences in these program types are the length of the experience and the depth of skill involved. Exploratory programs tend to be more short-term experiences that occur for the sake of more knowledge or understanding or simply to demonstrate an achieved skill. Placement programs are usually more long-term experiences that have planned skills that help the student achieve proficiency within a certain vocation.

Placement Suggestions

- **Clerk in local garden center or fruit stand**
- **Landscape and maintain home yard for a wage with parents as employers**
- **Work paid or unpaid on a relative's farm**
- **Work for the school in local land lab or ag facilities**
- **Work paid or unpaid in a local vet's office**

When beginning to engage middle school students in wage earning placement SAE programs, it will be important for the instructor to become familiar with labor laws concerning minors. In most areas of the country there are very specific regulations regarding what type of wage earning employment, if any, is acceptable for certain age groups. Also, the length of a work-day and workweek for minors can be strictly regulated. Instructors will also need to become familiar with how minors in their area can obtain work permits if they are required. Officials of the state and federal Department of Labor are usually a good starting point for locating these regulations regarding youth employment.

Planning for a Middle School SAE Program

SAE is an important component of a middle school agricultural science program. When planning to begin a SAE program, the following questions should be considered:

- What type(s) of SAE programs will students have?
- What are the minimum standards for SAE programs?
- How much time will students be required to invest?
- Will there be a minimum number of activities required?
- What type of record keeping will be required?
- What percentage of the course grade will be determined by SAE?
- How will the programs be supervised?

The Agricultural Science Teacher's Role in SAE

The middle school agricultural science teacher plays several roles for SAE projects, including explaining, exposing, encouraging, and supervising.

Explanation of SAE

Students will not enter the middle school agricultural science class with knowledge of SAE. The first role of the teacher is to explain what SAE

is and its purposes. This explanation should be done in class as a unit of instruction, in which the types of SAE projects are explained, along with the expectations and requirements for SAE clearly outlined. Given that many SAE projects occur at least partially out of class, it may also be necessary to explain to parents about SAE.

Exposure to SAE Programs

Once students have a basic understanding of SAE, the next role of the middle school agricultural science teacher is to expose students to examples of outstanding SAE projects. An excellent method of accomplishing this is to have older students share their projects with new students. Other possibilities include a SAE showcase where students display portions of their projects or an agriscience fair.

Encouragement to Begin SAE Programs

The quality and scope of SAE projects is attributable to the amount of encouragement from the middle school agricultural science teacher.

If SAE projects are required, students need encouragement to expand and improve their project. However, if SAE projects are optional, students need encouragement from the teacher to begin the project

Supervision of SAE Programs

The "S" in SAE stands for "Supervision" and is an important role of the teacher. Supervising SAE projects includes helping plan the project, monitoring progress, and making suggestions for improvements. The educational value and quality of a SAE project is directly related to the supervision by the agricultural science teacher.

Successfully Implementing Middle School SAE Programs

Successfully incorporating SAE into a middle school agricultural science program may be challenging. The following guidelines should be helpful:

- Develop a thorough plan prior to incorporating SAE programs.
- Encourage SAE programs that can be completed within the term that students are enrolled in an agricultural science class.
- Incorporate SAE programs into class time, possibly providing weekly time for record keeping or student presentations.
- Record keeping is still an important part of middle school agricultural science education programs. It teaches the importance of financial management, responsibility for actions and personal accountability. It also serves as an integration tool used to promote reading, and writing and utilizes math skills. However, the process of record keeping needs to be age appropriate. Also remember that records kept in the seventh and eighth grade year can be used for proficiency and degree applications as the student progresses through agricultural science education and FFA.
- Adequate supervision is

critical, so encourage SAE programs that will be easily supervised within the agricultural science teacher's available time.

- Involve parents in planning and implementing SAE programs.
- Develop a system for recognition of all SAE programs in the local agricultural science program, such as an agriscience fair or SAE fair. If room exists in the classroom, students may create posters to display important components of their SAE program.
- Collaborate with other middle school agricultural science teachers to share ideas and successful strategies.
- If opportunities exist, encourage students with outstanding SAE programs to enter into recognition programs, such as school science fairs, state agriscience fairs, or proficiency awards.
- When implementing SAE programs into a middle school agricultural science program, start gradually and set realistic goals for the types and scope of individual student programs.

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CHAPTER 7

The Third Key: FFA

Student activities conducted in and beyond the classroom offer middle school students opportunities to build trusting relationships with peers and adults, explore interest areas, experience leadership and democracy, and build self-esteem by finding a place to belong and to experience success. Establishing a local chapter of the National FFA Organization can easily serve this role. Agricultural science teachers report that effective middle school FFA chapters:

- provide students fun and involvement
- emphasize participation and exploration through hands-on projects and activities
- involve student teamwork in programs and any competitions
- provide leadership roles for all interested students
- recognize all students, not just "the stars"
- use or adapt selected FFA programs and services, including:
  - *FFA New Horizon* magazine
  - Food For America program
  - short-term work with elementary or younger children, using ideas from the Partners in Active Learning Support (PALS) program
- community service and development projects described in various publications

FFA Advisor

Beyond teaching, agricultural science teachers serve as the advisor to the local FFA chapter. Teachers often report that this is one of the most satisfying portions of the job. The middle school FFA advisor plays a key role in inspiring, guiding, facilitating and recognizing student efforts. Successful advisors recommend that the middle school FFA advisor:

- be willing to give themselves in an advisory capacity above and beyond the normal school day
- facilitate coordination and cooperation among students, parents, school faculty and administrators, and with the community
- effectively communicate agricultural concepts, benefits and values to students and supporters
- stay current with middle school and agriculture-related learning activities
- locate and secure funding to support local FFA activities
- help students document and evaluate each project's effectiveness

There are many resources avail-

QUICK CHECKLIST: FFA

- ❑ **Link FFA leadership activities, award programs and competitive events to quality agricultural science education curriculum.**
- ❑ **Recruit and retain new members from diverse populations.**
- ❑ **Inform every student about the diverse opportunities in FFA.**
- ❑ **Elect capable officers and train them well.**
- ❑ **Ensure that all members share responsibilities and have access to leadership and other opportunities.**
- ❑ **Formulate a workable constitution and bylaws.**
- ❑ **Develop a challenging program of activities.**
- ❑ **Secure adequate financing.**
- ❑ **Build school and community support.**
- ❑ **Conduct well-planned, regularly scheduled chapter meetings.**
- ❑ **Maintain proper equipment and records.**

able to agricultural educators to aid in the management and facilitation of a quality FFA program. The Agriculture Teacher's Manual is a guide that was published through the collaborative effort of many organizations in agricultural science education. This guide contains information on specific areas that influence the success of your agricultural science education and FFA program. Within this publication you will find examples of forms and assessments that will aid you in program planning. Another publication that has key information leading to successful advising of an FFA chapter is A Guide to Local Program Success, 2nd Edition. This resource was also published through a collaborative effort and has detailed information and examples relating to the three keys and four strategies of local program success that were highlighted in Chapter 4. A Guide to Local Program Success provides you with tips from agricultural educators like yourself that have built successful programs focusing on these seven key principles and, like The Agricultural Teacher's Manual, provides valuable sample documents that can save you a great deal of time and effort in advising your FFA chapter.

Quick Steps to Establishing a New FFA Chapter:

- **Contact the state FFA advisor and express your interest in starting a new chapter. Ask the state advisor to provide information and materials that will help you do so.**
- **Contact the National FFA Organization for information that will help in establishing and chartering an FFA chapter.**
- **Discuss your intentions with school administrators to gain their support. Explain how FFA experiences will enhance student learning and career preparation.**
- **Inform students about FFA and get them excited to participate. The National FFA Organization provides many promotional publications and products that can help.**
- **Convene a meeting to organize chapter and elect student officers. Work with officers and potential members to establish a chapter constitution and initial program of activities.**
- **Collect state and national FFA dues. Ensure that a complete membership roster is compiled and remit it, along with dues, by the deadline date (please check with state FFA association for membership deadline).**
- **Take students to FFA meetings or events at the state and district levels, attend leadership conferences and analyze what local, state and national FFA programs or awards will be appropriate for your members to participate in.**

Chartering a Middle School FFA Chapter:

The first step in utilizing FFA as a tool in your school is to charter an FFA chapter. State FFA associations have varying policies regarding the establishment of new FFA chapters. Your first step would be to contact the appropriate state FFA staff person to receive guidelines regarding chartering new chapters. Once you have achieved all the guidelines set forth by the state FFA association and received an official charter, provide your chapter name, contact information for the

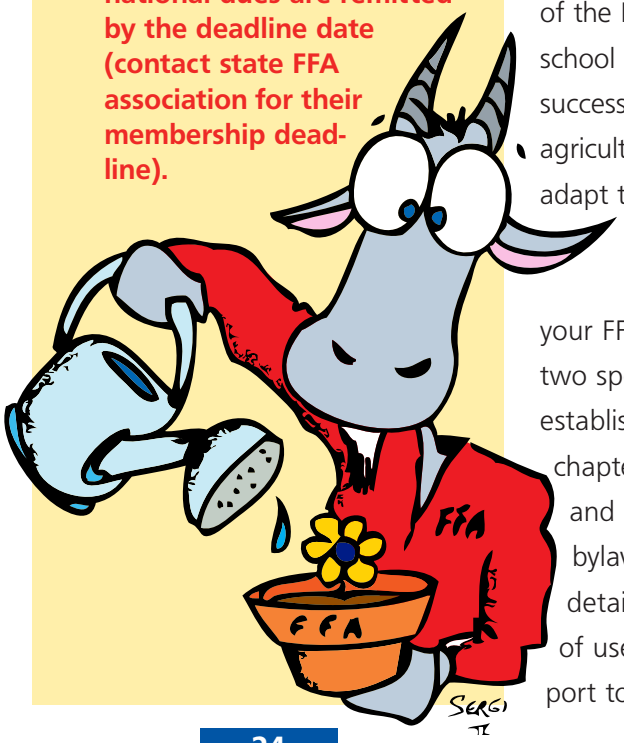
chapter, and other basic information to receive an official chapter number from the National FFA Organization. Once you receive a chapter number you need to supply an official roster and payment of dues to your state.

Below are some examples of documents required by some states to charter new chapters. More information on these documents is provided in this and subsequent chapters: (Please contact your state FFA association for the exact requirements. This list only serves as an example of documents required by some states. Many states may require more or less documentation depending upon the state policies and procedures.)

- An initial roster of members (more information on chapter membership is provided in this chapter)
- An established Program of Activities (POA) (more detail on POAs is provided later in this chapter)
- A list of chapter officers (more information regarding chapter officers is provided in this chapter)
- A copy of a chapter constitution and bylaws (more information on constitution and bylaws is provided in this chapter)
- List of advisory committee members (more information on the purposes and establishment of advisory committees is provided in Chapter 10: Partnerships)

Quick Steps to Maintaining an Existing FFA Chapter:

- **Review chapter records (constitution, charter, membership roster, finances).**
- **Obtain a copy of the previous year's POA, analyze what was achieved and what could be improved.**
- **Meet with elected chapter officers. Help them plan ways to obtain member input, involve members in planning and develop a written Program of Activities to keep members involved.**
- **Support members as they set goals, develop activities and evaluate the results of their program of activities.**
- **Ensure an accurate chapter roster and that state and national dues are remitted by the deadline date (contact state FFA association for their membership deadline).**



Maintaining an FFA Chapter

State FFA guidelines for maintaining a chapter could be as simple as submitting a roster and payment of state and national dues each year. In some states they not only require that you retain active membership but also submit annual documentation such as budgets, POAs, SAE records, etc. Once again, please make contact with your state FFA association regarding any state guidelines for maintaining a chartered FFA chapter

Structuring a Middle School FFA Chapter

Most advisors find that fun group projects and hands-on involvement is much more important than formal meetings, strict program guidelines and immersion in details about FFA traditions or programs. Some, however, report that elements of formality—parliamentary procedure, learning of the FFA creed, etc.,—intrigue middle school students. Flexibility is the key to successful middle school programs, so agricultural science teachers need to adapt the FFA chapter structure to fit students' interests and needs.

Most of the structure for your FFA chapter will be driven by two specific documents once they are established. Those documents are the chapter Program of Activities (POA) and the chapter constitution and bylaws. The following two sections detail how these documents can be of use to provide structure and support to the local FFA chapter.

Chapter Constitution and Bylaws

The constitution of the United States of America provides structure and order to our society by establishing the laws of the land, how our government shall be organized and how our governments leaders will be selected. It also serves as an important instrument to guarantee the rights of the citizens. In many ways an FFA chapter constitution does the same. It brings structure and order to the chapter by providing the rules and policies regarding general chapter operations, how the chapter is organized and the selection of student leaders. The chapter constitution also guarantees the rights and privileges of active members of the local FFA chapter. A chapter constitution is an essential tool for developing a strong chapter. Also, by having chapter policies and procedures documented it ensures that chapter business is carried out in a professional manner and helps student leaders and advisors avoid conflict and confusion in situations were potentially controversial decisions must be made.

Basic Structure of the Standard FFA Chapter Constitution

Article I- Name, Mission and Strategies: Typically this section establishes the official name of the chapter, the official mission statement (goals and purposes) or key strategic priorities the chapter seeks to accomplish.

Article II- Organization: This section establishes that the chapter is a chartered local unit of the state FFA association and the National FFA Organization and operates within the constitution of those respective units of FFA.

Article III- Membership: This section identifies the provisions that must be met in order to be a member of good standing in the local chapter.

Article IV- Emblems: In most chapters this section establishes that the official emblem of the FFA shall be the official emblem for the chapter.

Article V- Degrees of Membership: At the middle school level there is one degree that can be attained by members, the Discovery FFA Degree. Further information on the Discovery FFA Degree is detailed later in this chapter.

Article VI- Chapter Officers: This section establishes the official offices of student leadership and the process by which student leaders shall be selected.

Article VII- Dues: This section establishes the official dues to be paid for membership. Above and beyond the fixed state and national dues some chapters also establish local chapter dues that must be paid.

Article VIII- Amendments and Bylaws: This section indicates how amendments can be made to the constitution and how bylaws may be adopted.

You may also refer to your State FFA constitution or the National FFA constitution as an example.

Chapter Program of Activities (POA)

A program of activities, or POA, simply stated is a document which defines a chapter's goals. Within each of these goals is an outline of the steps needed to meet each of the stated objectives. The POA serves as a written document that allows FFA members, school administrators, the community and others to know the course that the chapter plans to follow.

There are many purposes for developing a POA to guide your chapter activities. When a diverse and active POA is established you can ensure that the individual needs of members are met. Most importantly, ownership of the POA should be with the members. Through committee structures (this is covered in more detail in the student leadership roles section of this chapter) student members should be responsible for developing the chapter activities and

the plans to achieve them. Developing a POA in this way can help middle school members gain planning experience, develop leadership skills, develop problem-solving skills and foster a sense of community involvement and pride. Also, establishing a POA can help a chapter determine the financial resources they will need for the year, which can help with budgeting and fundraising goals.

A POA is:

A record of WHAT is going to be done, WHO is going to do it, WHEN is it going to be done, WHERE it will happen, WHY it is happening, HOW it will be done, and HOW MUCH it is going to cost.

According to the National FFA Chapter Planning and Recognition Handbook a POA can be divided into three major divisions of emphasis. These divisions are student development, chapter development and community development. FFA chapters and the activities within them should seek to make an impact in each of these divisions. The purpose of the three divisions is as follows: Student Development— Promote personal and group activities that improve life skills Chapter Development— Encourage students to work together to improve the functions and resources of the FFA chapter Community Development— Cooperate with other groups to make the community a better place to live and work The National FFA Chapter Planning and Recognition Handbook also designates five quality standards within each of three divisions. For secondary FFA chapters, the National FFA Organization recommends that each chapter plan at least one annual activity for each quality standard within each division. This is the best way to ensure that a diverse POA has been offered that fully meets the need of each student, the chapter and the community. Recently formed middle school FFA chapters may not have the capacity to conduct an activity that addresses each quality standard. However, you may want to start with a group of core activities and expand each year until you have reached the goal of an activity for each quality standard in each division. The following provides details of what quality standards should be addressed in each division and examples of activities that would meet the quality standard. FFA Membership

Student Development:

- **Leadership— Students attend leadership workshop**
- **Healthy Lifestyles— Students attend or are provided courses on the dangers of substance abuse**
- **Supervised Agricultural Experience— Students attend workshop on SAE record keeping**
- **Scholarship— Chapter provides recognition to all members that make the honor roll**
- **Agricultural Career SkillsMembers go on field trip to a dairy, greenhouse, etc.**

Chapter Development:

- **Chapter Recruitment— FFA members conduct program for sixth graders about the advantages of taking agricultural courses**
- **Financial— Chapter conducts fundraiser to support FFA activities**
- **Public Relations— Chapter conducts breakfast for entire faculty and presents a program on the FFA chapter**
- **Leadership— Chapter holds a planning meeting to train officers and committee chairs on duties and create the annual chapter POA**
- **Support Group— Chapter hosts a dinner to form an FFA alumni chapter to support the members and their activities**

Upon joining FFA and paying dues, students are members of the local FFA chapter, the state FFA

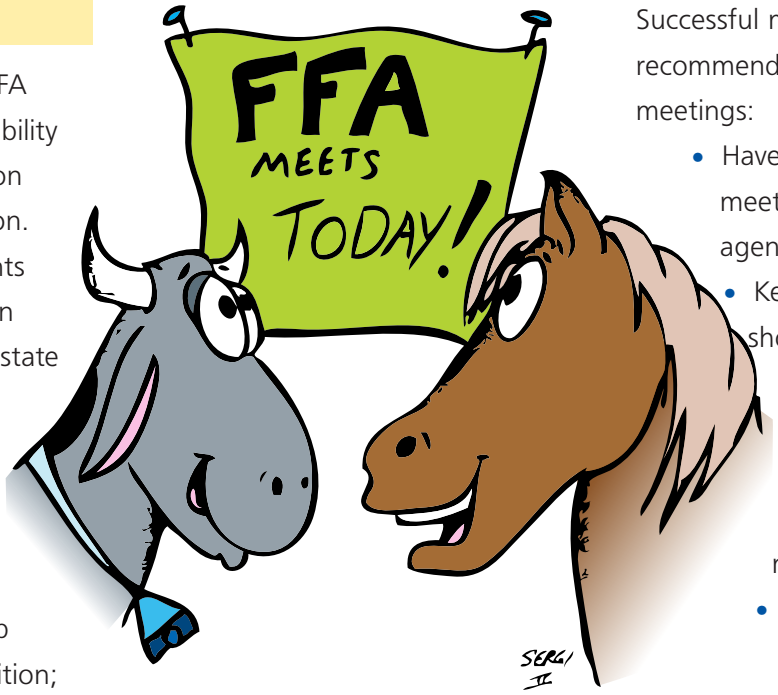
Community Development:

- **Economic— Chapter could develop an advertisement or coupon book that encourages the support of local businesses**
- **Environmental— Chapter could Adopt-A-Highway, participate in a river clean-up program or participate in a community beautification project**
- **Human Resources— Students collect food and clothing for local food banks or charities**
- **Citizenship— Students volunteer time to help with local civic projects such as preservation of historical sites, local festivals, etc.**
- **Agricultural Awareness— Chapter could develop displays to be used at local festivals or community events that highlight the local agricultural industry**

association, and the National FFA Organization. Membership eligibility is determined by the constitution of the National FFA Organization. Currently, middle school students in seventh and eighth grade can become members at the local, state and national levels. However, some states allow sixth-grade students to join only the local FFA chapter and state association. Membership privileges include holding leadership positions; receiving FFA recognition; and participating in out-of-school activities, trips or projects. As stated in the National FFA Constitution, membership by middle school students is open to:

Middle school students (Grades 7-8) who:

- are enrolled in at least one agricultural science education course during the school year and/or follow a planned course of study; either course must include a supervised agricultural experience program, the objective of which is preparation for an agricultural career.
- show an interest in the affairs of the organization by attending meetings, striving for degrees of membership, and participating in other organized activities of the chapter.
- pay all current state and national dues by the date determined by the chapter.
- display conduct consistent with the ideals and purposes of the National FFA Organization.



As stated earlier in this section some states allow membership at the state and local levels at sixth grade and below. Please check with your state FFA association regarding such regulations.

Effective FFA Meetings

Local FFA chapters should regularly schedule meetings. The frequency and time of the meetings is often controlled by the school through "club days" or other scheduled activities. Typically, FFA chapters meet at least once a month. Conducting effective meetings is critical for continued student involvement and excitement. Successful middle school FFA advisors recommend these ideas for chapter meetings:

- Have student leaders decide on meeting activities, develop the agenda and run the meetings.
- Keep formal business items short and concise.
- Include a student-run, hands-on learning activity.
- Include a social element.
- Make it fun.

Recruitment

In many schools, joining FFA is optional, but strongly encouraged. Middle school FFA advisors successful at recruiting students suggest the following:

- Send a letter to each inco-ing middle school student that encourages participation.
- Work with students to develop a brochure featuring chapter highlights and benefits.
- Provide a student handbook outlining the year's plans.
- Invite incoming students and parents to an evening event. Have current students describe their experiences and what they've learned.
- Incorporate social interaction and fun in all activities. Middle school students join organizations to be with their friends.
- Take lots of field trips—it's what middle school students most enjoy about the FFA. (Remember, field trips can involve on-foot transportation and can occur within a single class time block.)
- Have students design and create T-shirts, buttons and book covers celebrating their FFA chapter.
- Offer FFA items—stickers, notepads, T-shirts, caps, etc.— as membership incentives and spirit boosters.

More detailed ideas for planning a recruitment effort are provided in the *FFA Guide to Recruitment and Retention*. Recruitment is key to the success of your program. You must be able to relate FFA to student interests and provide diverse opportunities to recruit and retain a thriving membership at the chapter level.

National FFA Award and Recognition Programs Available to Middle Grade Participants

- **Agri-Entrepreneurship Program**
- **Agriscience Fair**
- **Career Development Events (Creed)**
- **Discovery FFA Degree**
- **H.O. Sargent Diversity Award**
- **National Chapter Award program**
- **Risk Management Essay Contest**

Middle School FFA Awards and Recognition Programs

Middle school teachers should give careful consideration to individual students when involving competitions. Many experts agree that such "winner takes all" competitions are not a positive learning experience for many middle school students. Although there are benefits to competitive activities, participation should be emphasized over competition.

Middle school students are, however, often inspired to learn by "competing" against their own past performance, adding slightly more difficult accomplishments in stages. In fact, middle school educational philosophy promotes judging student progress by their individual improvements. Competition with self or against self-developed criteria can provide effective motivation for many students.

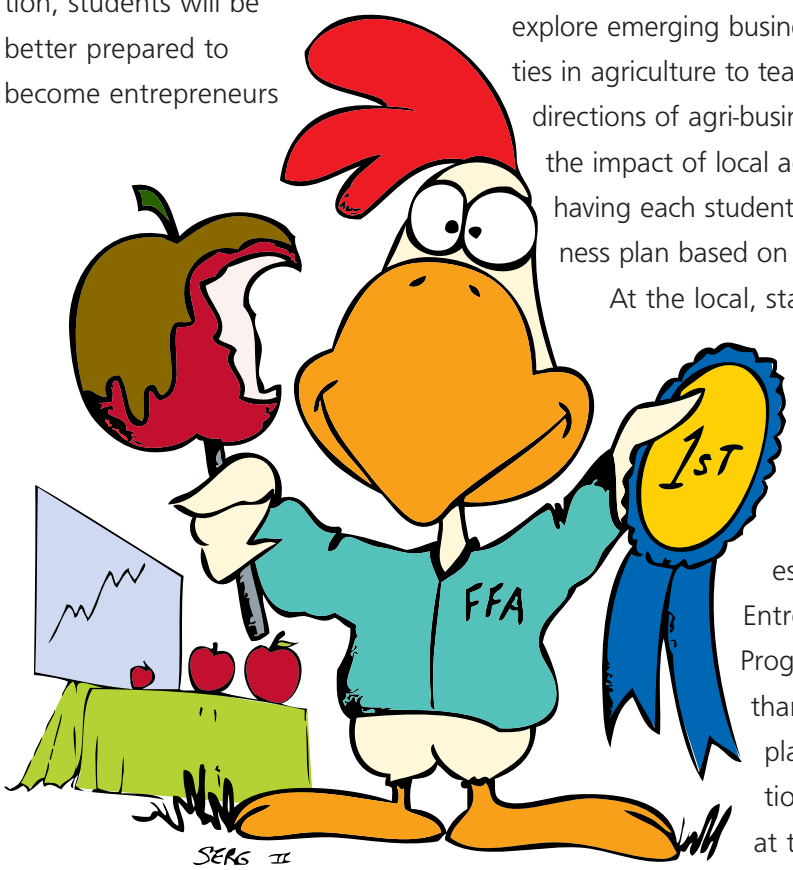
The middle school agricultural science program and FFA chapter should provide a variety of ways for all students to experience success and be rewarded for their achievements whether they are driven by competition or not. Additionally, many state FFA associations offer a wide variety of state-level awards and recognition programs exclusively to middle school FFA members. Please contact your

state FFA association regarding such events and any rules or policies that govern these activities. The National FFA Organization also offers a variety of award and recognition programs that are open to participation by middle school members.

The following segments detail how middle school FFA members may get involved in each one of these exciting opportunities offered by the National FFA Organization.

The Agri-Entrepreneurship Program

The Agri-Entrepreneurship Program is designed to increase the amount of entrepreneurship being taught in local agriculture programs across the country. With this information, students will be better prepared to become entrepreneurs and will begin to perceive entrepreneurship as a viable career choice. The Agri-Entrepreneurship Awards honor FFA members who have recognized a market opportunity that was overlooked by others and conceived a plan to pursue that opportunity.



Participating students do not have to have a business in place to participate. They only need to design a business plan. There are many interesting connections middle school agricultural educators can make between this program and their curriculum, especially if thecurriculum requires the teaching of any rudimentary business or entrepreneurial concepts. Some teachers elect to have each student in their classroom put together a simple business plan. Teachers could have each student explore emerging business opportunities in agriculture to teach the future directions of agri-business or teach the impact of local agriculture by having each student develop a business plan based on local industry.

At the local, state and national level there are many award opportunities for students interested in the Agri-Entrepreneurship Program. If more than one business plan and application is completed at the chapter level, then a chapter winner must be selected. You could award a member of your chapter $150 each year for their participation in the program and selection as a chapter winner. This provides a great incentive for students to join the FFA chapter and to get involved with Agri-Entrepreneurship in the classroom. All applications completed at the chapter level are eligible to be submitted to the state FFA association. Based on sponsor funding, each participating state may award $250. All applications are then sent to the national level where 10 national winners are selected and receive $1,000. These applications are due each year on July 15 at the national level. Please contact your state FFA association for the deadline they require for submission for the state FFA judging process.

Agriscience Fair

Agriscience education is intended to enhance the image of agriculture by portraying to students that agriculture includes many careers that are not solely agricultural production or business-oriented. Such careers require a strong background in the biological and physical sciences. The National FFA Organization promotes agriscience education through many of its programs. Middle school students can directly participate in one such program, the National FFA Agriscience Fair.

The Agriscience Fair is open to students in grades 7-12. Students

participate in research projects in their local communities and then prepare a scientific report and display for judging at the state and national level. These projects can be completed by individuals or by two-person teams. Competition is divided into five categories:

- Botany
- Engineering
- Environmental Sciences
- Zoology
- Biochemistry/Food Science/ Microbiology

Within each of these categories are separate junior divisions for individuals and two-person teams in grades 7-9 to compete with each other. Participation begins at the local and state level. Contact your state FFA association for information on deadlines and scheduling of local and state level agriscience fairs that lead to the national event. There are also many other organizations that operate science fairs in which these projects may be applicable.

The agriscience fair is also a great

Agriscience Fair Career Category Explanations and Examples

Biochemistry/Microbiology/ Food Science

Biology of microorganisms-bacteriology, virology, protozoology, fungi bacterial genetics, yeast. This area also can include chemistry of life processes-molecular biology, molecular genetics, enzymes, photosynthesis, protein chemistry, food chemistry, hormones, etc.

Examples: Compare different yeast fermentation techniques for converting sugars to alcohol. Research resistance of organic fruits to common diseases. Examine techniques for controlling molds on bakery products.

Environmental Sciences

Study of pollution (air, water and land) sources and their control; ecology

Examples: Study effect of agricultural chemicals on water quality. Compare water movements through different soil types. Examine effects of cropping practices on wildlife populations. Compare different irrigation systems for energy efficiency. Research uniform water quality standards.

Zoology (Animal Science)

Study of animals-animal genetics, ornithology, ichthyology, entomology, animal ecology, paleontology, cellular physiology, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc.

Examples: Compare effects of different thawing temperatures on livestock semen. Compare effects of different nutrient levels on animal growth. Study effects of growth hormones on meat or milk production. Research new disease control mechanisms. Examine effects of estrous synchronization on ovulation.

Botany (Plant/Soil Science)

Study of plant life-agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae, etc.

Examples: Study effects of lunar climate and soil conditions on plant growth. Examine effect of substrate particle size on shiitake mushroom growth. Research effects of heavy metals such as cadmium on edible plants. Compare plant growth using hydroponics and conventional methods. Study effect of ultraviolet light on soil microbes.

Engineering (Mechanical/ Agricultural Engineering Science)

Technology; projects that directly apply scientific principles to manufacturing and practical uses-mechanical, chemical, electrical, environmental engineering, etc.

Examples: Develop alternate energy source engines. Investigate light energy sources. Test absorption media for plant materials. Compare various tillage methods for energy efficiency.

opportunity to infuse FFA and agriscience into the classroom. As a part of the local curriculum all students could conduct research projects, write reports and develop displays. Many agricultural educators also partner with the science departments in their local schools to make this activity a true academically integrated and cross-curricular activity.

There is also ample opportunity for students to be recognized for their efforts through this program. Many state FFA associations offer various awards for participation at their level. This information can be found by contacting the state FFA advisor. At the National FFA Agriscience Fair the national winner in each category and division receives a plaque and all students whose projects are judged in the top three of their division receive cash awards contingent upon sponsor funding. Ribbons are awarded to all students who participate in the National FFA Agriscience Fair.

Career Development Events (CDE)

For students who ask their teachers "When will I ever use this in the real world?" Career Development Events (CDEs) can be the answer. Since 1928, FFA has worked to create CDEs that demonstrate the meaningful connections between classroom instruction and real-life scenarios.

CDEs should build on what is learned in agricultural classes and FFA. The events are designed to help prepare students for careers in agriculture. Classroom instruction comes alive as students demonstrate their skills in a competitive setting. CDEs test the abilities of individuals and teams in major areas of agricultural instruction.

Many states offer CDE opportunities for their members at the middle school level. These opportunities range from very technical events such as livestock evaluation to leadership-oriented events such as parliamentary procedure or public speaking. It varies from state to state as to how these middle school CDEs are organized or how middle school students may become involved. Some states may call these junior-level CDEs that have slight variations from their high school or senior-level counterparts and only students at certain grade levels are eligible to participate. In other states, middle school students are allowed to participate in the full event along with FFA members from the high school level. You need to contact your state FFA association to find out what CDE opportunities are available to middle school students in your state and what procedures and guidelines govern such activities.

Currently the National FFA Organization offers one CDE that is open to participation by members in grades 7-9. This event is the National FFA Creed Speaking CDE. This is a basic event that combines public speaking skills and FFA history. The FFA Creed was written by E.M. Tiffany and adopted as the official creed of the organization at the 3rd National FFA Convention. The FFA Creed has been modestly revised through the years to reflect the changes in agricultural life but still embodies the best of what we hope for from FFA members. In this CDE, members are asked to memorize and recite the FFA Creed as well as answer questions regarding

THE FFA CREED

I believe in the future of agriculture, with a faith born not of words but of deeds—achievements won by the present and past generations of agriculturists; in the promise of better days through better ways, even as the better things we now enjoy have come to us from the struggles of former years.

I believe that to live and work on a good farm, or to be engaged in other agricultural pursuits, is pleasant as well as challenging; for I know the joys and discomforts of agricultural life and hold an inborn fondness for those associations which, even in hours of discouragement, I cannot deny.

I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of progressive agriculturists to serve our own and the public interest in producing and marketing the product of our toil.

I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so--for others as well as myself; in less need for charity and more of it when needed; in being happy myself and playing square with those whose happiness depends upon me. I believe that American agriculture can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task.

The creed was written by E. M. Tiffany and adopted at the 3rd National Convention of the FFA. It was revised at the 38th Convention and the 63rd Convention.

School-Based Competitive Event

- **Quiz Bowl**
- **Agriscience Fair**
- **Agri-mechanics entrepreneurial design**
- **Community service plan and presentation**
- **FFA Creed speaking competition**
- **FA mission and motto presentation and explanation**
- **Extemporaneous speaking**
- **Prepared public speaking**
- **Local plant and seed identification**
- **Small animal showing and demonstration**
- **Agricultural marketing campaign and ad design related to agricultural issue**

its meaning and purpose. Students are judged on voice, stage presence, power of expression, general effect and their responses to questions. More detailed information about the event can be found in National FFA Career Development Events Handbook. This event is a great way for middle school students to boost self-confidence, earn recognition and develop their ability to communicate in a powerful, organized and professional manner. To qualify for this event, students must first participate at the state level and sometimes have to go through rounds of local events to make it to the state level. Please check with your state FFA association for guidelines regarding the FFA Creed Speaking CDE. Free certificates and medals are available from the National FFA Organization to present to your chapter winner in this event and other areas.

Should your state offer only limited CDE opportunities you can choose to develop your own such career-based competitive educational activities at the local level. This can help you enhance your curriculum and provide valuable experience to your members.

How to Set up Local CDEs for

Middle School Students

The first rule of thumb is: do not get caught up in the traditional competitive paradigm of career development events and other national competitions! They just may not work at the local level. If these activities are meant to be outgrowths of the classroom learning, what makes the most sense? Can they be a form of authentic assessment? Will students be graded or is this a voluntary activity? How can you engage all students to feel that they are winners? How can parents and community members be involved? Is this a school-wide activity? Other suggestions:

- Think creatively about what makes the most sense for your students. Livestock judging may not be appropriate, but a quiz bowl could fit the bill!
- Engage students across disciplines: This may be a great way to develop your interdisciplinary team of teachers.
- Use CDEs as a form of authentic assessment: as an outgrowth of the curriculum they should be unique and exciting ways to demonstrate knowledge and skills in specific content areas.
- You can't do this by yourself. Use parents and community members as judges, logistics coordinators, promoters and cheerleaders.

SAMPLE DISCOVERY DEGREE APPLICATION

The Discovery Degree is an optional degree granted to middle school/junior high members based on FFA membership and knowledge gained through seventh and eighth grade agricultural science education programs.

Member Name: _____

Member Address: _____

_____

_____

Year in school: _____

Yes	No	
___	___	I am, have been [or will be] enrolled in an agricultural class for at least a portion of the school year while in 7th or 8th grade.
___	___	I have paid FFA dues to be a member of the local, state and national levels.
___	___	I have participated in at least one local FFA chapter activity outside of scheduled class time.
___	___	I have knowledge of agriculture-related career, ownership and entrepreneurial opportunities.
___	___	I am familiar with the local FFA chapter Program of Activities.
___	___	I am submitting this as my written application for the Discovery FFA Degree.

_____ _____
FFA Member Signature Date

_____ _____
Parent Signature Date

_____ _____
Chapter President Signature Date

_____ _____
FFA Advisor Signature Date

_____ _____
Principal Signature Date

FFA Degree Program

Discovery FFA Degree
Greenhand FFA Degree
Chapter FFA Degree
State FFA Degree
American FFA Degree

Discovery FFA Degree

The National FFA Organization has authorized a degree of membership exclusively for middle school FFA members—the Discovery FFA Degree. To be eligible to receive the Discovery FFA Degree from a chapter, the member must meet the following minimum requirements as outlined in the National FFA Organization constitution (these requirements should also be outlined in the chapter FFA constitution):

- Be enrolled in agricultural science education class for at least a portion of the school year while in grades 7-8.
- Have become a dues-paying

member of the FFA at local, state and national levels.

- Participate in at least one local FFA chapter activity outside of scheduled class time.
- Have knowledge of agriculturally related career, ownership and entrepreneurial opportunities.
- Be familiar with the local FFA chapter program of activities.
- Submit written applications for the degree.

The FFA Degree

The FFA Degree program allows students to have set and targeted goals of achievement. It should be a chapter goal that each FFA member within a middle school chapter be able to meet the minimum requirements and receive the Discovery FFA Degree.

This degree structure continues to the high school chapter level where these students may go on to earn their Greenhand and Chapter FFA degrees locally and the State FFA Degree from the state FFA association. The highest degree of membership an FFA member can attain is the American FFA Degree, which they can receive one year after high school graduation if they meet all the minimum standards set forth by the National FFA Constitution. Advancing through the FFA degree program can be an authentic assessment or benchmark of an individual's growth and success as an FFA member. For students who begin their membership at the middle school level it all begins with the Discovery FFA degree. A Discovery FFA Degree certificate template is available online from the National FFA Organization. If you order certificate paper, you can print certificates for each of your eligible members.

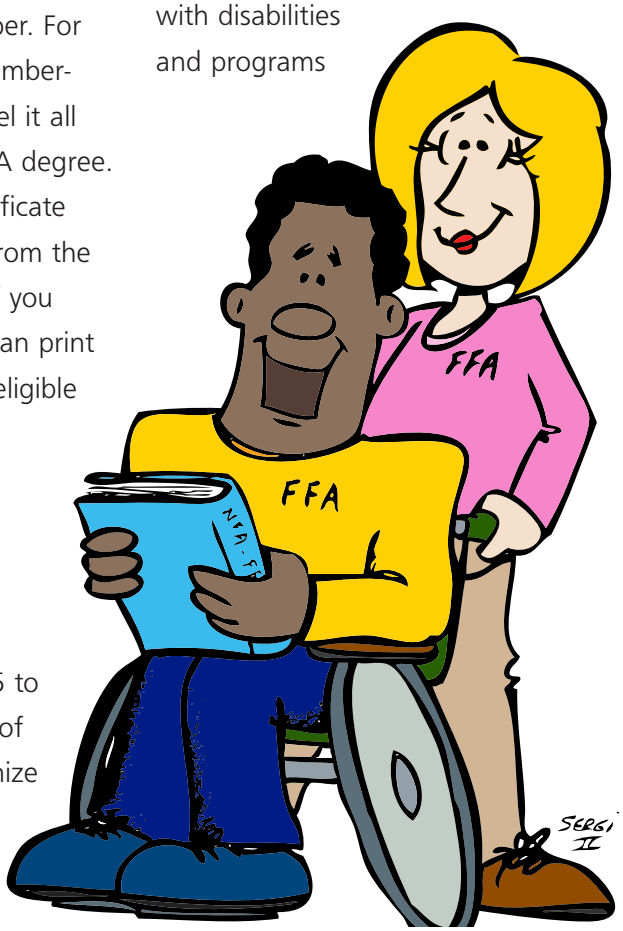
H.O. Sargent Diversity Award Program Examples

- **Students work withpeers with disabilites on agricultural activities**
- **Students tutor ESL peers in academic areas using agri cultural context**
- **Students visit urban elementary schools to present Food For America lessons and activities**
- **Organize a New Farmers of America Awareness Week**
- **Design a membership recruitment workshop for a wide array of students**

H.O. Sargent Diversity Award Program

The National FFA Organization established the H. O. Sargent Award in 1995 to remember the New Farmers of America (NFA) and to recognize their place in the history of FFA. The overall purpose of the H. O. Sargent Award is to recognize success in achieving and promoting diversity in agricultural science education and the FFA. This award is a modification of the H. O. Sargent Award that existed in the NFA prior to the combining of the NFA and FFA.

Middle school members are eligible to participate fully in this program. However, there is not a separate category or division specifically for middle school members. To get involved in this program a student must design and implement an effort that enhances diversity within agricultural science education or FFA. These programs can deal with a wide variety of diversity. Some examples are ethnic diversity, gender diversity, working with people with disabilities and programs



National Chapter Award Categories

All the following award categories are open to middle school FFA chapter participation: State

Superior Chapter Award

Earned by chapters that complete and document at least one activity related to each of the 15 quality standards.

State Gold, Silver and Bronze Awards

Earned by chapters that supply additional information about three activities in each division. State judges score these activities to determine the exact award level.

Three-Star, Two-Star and One-Star National Chapters: National Level Award

Chapters that receive the State Gold Award advance for national judging. Judges score each application to determine the appropriate star rating.

Model of Innovation Finalist Awards

Presented to the 10 most innovative Three-Star Gold chapters in each division as determined by a panel of judges.

National Winner

A chapter for each division is selected as a national winner through an interview and judging process.

Outstanding Middle School Chapter

From the middle school chapters that have been selected as state gold chapters and submitted to the national level a panel of judges select one middle school chapter as the nation's most outstanding middle school chapter.

designed to expose more urban or suburban youth to agriculture and FFA.

Students who conduct such programs have ample opportunities to be awarded for their efforts. Annually, you can award a chapter winner in this award category. As with other programs, the template for a chapter level certificate is available from the National FFA Organization.

Chapter level plaques are also available from FFA Unlimited. Each chapter winner can be submitted for state recognition. Please contact your state FFA association for procedures and guidelines regarding applications at the state level. At the state level the state winner will receive a cash award contingent upon sponsor funding. The state winners are forwarded to the National FFA Organization for national recognition. From the pool of state winners, four national finalists are selected who have the opportunity to interview and present their diversity program to a panel of judges at national FFA Convention. Contingent upon sponsor funding, each national finalist will receive a cash reward and a plaque; additionally, the national winner will receive an additional cash reward and a plaque.

National Chapter Awards

At the FFA chapter level, middle schools can participate in the National Chapter Awards program by completing the appropriate awards application. This process starts at the beginning of the school year when members complete a Program of Activities (POA), which outlines the planned activities for the year. At the end of the year, members complete the National Chapter Award application that outlines the accomplishments of the chapter in regards to their POA. This application has two parts. Form I is a short form that briefly describes some of the chapter's accomplishments. The chapter has to show how they have impacted all of the fifteen quality standards in the three divisions that were highlighted in the earlier section on POAs. Those who complete and submit Form I at the state level are recognized as State Superior Chapters. Some state FFA associations require submission of Form I from every FFA chapter. Each state superior chapter receives a certificate. Please contact the state FFA association for further direction on procedures and guidelines governing the submission

of National Chapter Award applications at the state level.

Chapters who wish to be considered for additional state recognition and awards at the national level must also complete Form II, which gives greater details about the activities of the FFA chapter. At the state level, chapters who submit Form II applications are declared bronze, silver, or gold by a team of judges. These chapters receive a multi-year plaque and a spur designating the year and appropriate rating that can be placed on the plaque. After receiving the plaque the first time, the chapter then receives a spur to be placed on the plaque for each subsequent year they receive a gold, silver or bronze rating at the state level. Many states also have awards or recognition above and beyond what is offered by the National FFA Organization for the top chap- ters in their states.

A state FFA association may send gold-rated applications that are in the top 10 percent of all chapters in the state to the national level for further consideration (example: A state has 150 chapters statewide; they may send 15 national chapter applications to the national level). At the national level these chapters are eligible to receive a one-star, two-star or three-star rating based on their accomplishments. All chapters that receive a national star rating receive a multi-year plaque and a spur to place on the plaque indicating the year and the rating they receive. These plaques and spurs are presented on stage at the National FFA Convention.

Middle School chapters are also eligible to become a finalist and national winner in the Models of Innovation competition, which recognizes the chapters with the most innovative chapter activities in the areas of Student, Community and Chapter Development. Chapters who wish to be considered for this achievement must complete Form III of the National Chapter application, which measures the chapter's level of success in each essential of an FFA chapter as outlined by the Official FFA Manual. Ten chapters are selected in each of the three divisions. These chapters give a presentation on their chapter POA for a panel of judges during the national FFA Convention where the national winner is selected. The finalists and winners are rewarded for their efforts with a plaque and, contingent upon sponsor funding, monetary grants for the local chapter.

There is also a category of this award program reserved specifically for middle school programs. Annually, out of all the middle school chapters who are declared State Gold chapters and submitted for national participation, one chapter is selected as the National FFA Outstanding Middle School program. This program highlights the specific efforts made by a middle school FFA chapter to improve their community and build a strong POA. This outstanding middle school chapter is presented a plaque on stage at the national FFA convention and, contingent upon sponsor funding, receives a monetary grant for the chapter.

Risk Management Essay Contest

Production agriculture is a high-risk undertaking. Students who participate in the Risk Management Essay Contest will develop an

Constitutional FFA Student Offices
President
Vice President
Secretary
Treasurer
Reporter
Sentinel
Other Offices might include:
Historian
Parliamentarian
Chaplain

understanding of the principles of risk management and learn how to select the proper strategies to minimize risk and maximize returns. In this event, students write a personal essay on how risk management strategies can be used in a supervised agricultural experience (SAE) program. Essays must be no less than 1,000 words typed, double spaced on plain white paper, and be the original work of the member.

This is another FFA award activity that can tie in with the class- room curriculum. Using various resources, an instructor can teach tenets of risk management and use the essay as an assignment to reinforce lessons covered in the instructional component. At the chapter level, all essays that are completed by FFA members can be submitted for national judging. Once again, this provides an opportunity for all members to become involved in an FFA educational program. This program currently does not have a specific category for middle school participation, but FFA members are eligible to participate.

Ten national winning essays will be selected on the basis of content, adherence to the assigned topic, grammar, organization, originality and creativity. Each of the ten winners and his or her advisor will travel to Washington, D.C., all expenses paid, for a special USDA Risk Management Agency/FFA Day. While in Washington, students and advisors will meet with USDA officials and members of Congress and be recognized in a special ceremony. Lodging, transportation and meal costs will be covered for each student winner and his or her advisor. A list of the top ten winners will appear in *FFA's New Horizons* magazine, *Making a Difference* newsletter and www.ffa.org.

Student Leadership Roles

The National FFA Organization offers all interested students the opportunity to experience leadership. It is important that leadership roles be available to all students, not just a select few or those most popular with their peers.

Many middle school FFA advisors find that short-term leadership Many middle school FFA advisors find that short-term leadership experiences serve students well, while others favor a more formal approach via chapter offices and committee structures. The FFA advisor and members can redefine leadership roles that best suit their local organization. Consult the FFA Handbook for a list of chapter officer responsibilities. Student leadership roles might include:

- Classroom team or small group members leaders/ reporters
- Classroom helpers, who assist with class or chapter set-up, administration and clean-up
- Chapter FFA officers

Chapter officers serve a vital function in FFA. By taking a major leadership role, these student grow from the experience and benefit the chapter. It should be the goal to lead by example and encourage other members to participate in chapter activities. The following general duties are expected of all officers:

- A genuine desire to be a part of a team
- A willingness to accept responsibility
- A sincere desire to work with all chapter members in meeting their leadership, personal and chapter goals
- A commitment to lead by example
- A knowledge and understand-

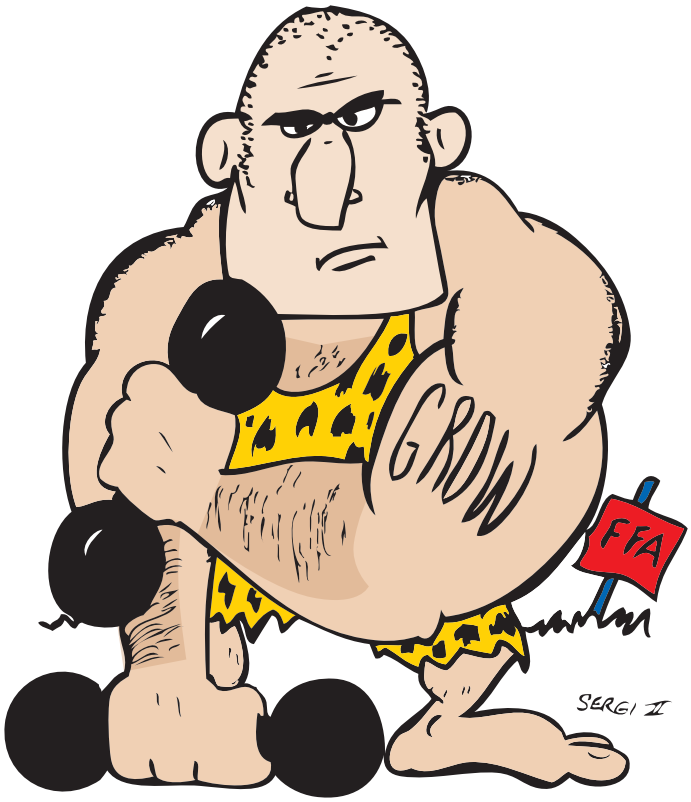
ing of the chapter, state and national constitution and bylaws

- A working knowledge of parliamentary procedure
- An ability to memorize their part in the opening ceremonies and uphold the specific duties and responsibilities that relate directly to their office

Many chapters also use committee structures to enhance student leadership and carry out the work of the chapter. It is imperative that each member recognize they have a voice and role in the chapter program of activities. A committee structure, while a formal approach, can ensure that process. Many chapters choose to have large basic committees based on the three major divisions of the program of activities: student development, chapter development and community development. From these three large committees a chapter could from as many sub-committees as needed. Some chapters use a mixture of standing and ad-hoc committees. Standing committees are the major committees that exist year to year (e.g., budget committee, banquet committee), while ad-hoc committees are formed for a one-time event or purpose (e.g., Mother's Day committee, campus clean-up committee). If you decide to use a committee structure, then every chapter member can be assigned to a committee and have a leadership role within the chapter.

Conventions and Conferences

The National FFA Organization offers many opportunities for FFA members from many local chapters to assemble. State FFA associations usually have a state convention (often during the summer) where state-level awards are presented, official business is conducted, state officers are elected, and various competitive events and leadership development activities occur. The National FFA Organization hosts the national convention in the fall, where much of the same occurs, except on a national level. These conventions can be exciting and educational experiences for middle school members. Many states and even local FFA areas and districts conduct leadership conferences and FFA camps. These events can enhance student leadership in the chapter as well as help members build strong communication skills and self confidence. Further information on these conventions and conferences can be obtained by contacting your state FFA association office or the National FFA Organization (www.ffa.org).



CHAPTER 8

The Fourth Key: Program Planning

Agricultural educators have a number of competing duties and responsibilities during the course of any given day. Some of these include teaching classes, grading assignments, supervising FFA activities, visiting SAE programs, attending parent conferences and attending family and community activities. On top of these concerns is the need to develop a mission and direction for your total program.

When it comes to program planning there are many competing voices about what direction and avenues you need to take. There are many different opinions on the best way to run an agricultural science education program. Most will receive input and advice from administrators, parents, other teachers, advisory members and many other groups. Each group will have its own priorities and expectations for your program. However, these groups do not make the final decisions. You do. Ultimately, you are responsible for what direction to take within the limits of your budget, personnel and time. When you take the whole picture into consideration, you may not be able to accomplish every suggestion. This may create friction. That is why it is important to get every group to the table to agree on priorities and work toward goals to address them.

As impossible as this may seem, there are ways to accomplish it. A good system of program planning can help you:

- Create a vision of the future for your agricultural science education program.
- Develop a plan to achieve that vision through strategic planning and partnerships.
- Implement that strategy and utilize those partnerships in a way to create an agricultural science education program that meets future industry, community and educational demands.

Involve Key Partners in the Process

Involving diverse groups from the community will strengthen your program planning process. There are many different ways to involve the community, including the use of an advisory committee. However, bringing together an advisory committee does not ensure success in prioritizing competing demands. Here are some tips:

- Identify people that represent every facet of your community's geography, demography, ethnicities and business interests to take part in the process.
- Locate people with a proven track record of supporting agricultural science education, but also include groups representing many diverse viewpoints, especially program critics.
- Invite those that are key stakeholders in your program to the

Benefits of a Vision

- **Focuses everyone on the long-term aspirations, not just issues of the moment**
- **Forges agreement between stakeholders on what is truly important to the program**
- **Provides new direction and excites action by clarifying priorities**
- **Manages conflicts or problems in your program as they arise by allowing you to refocus priorities**
- **Motivates people to work together to a common goal**
- **Allows you to explore trends that are alread yunderway to understand probable future changes**

Strategic Planning Tips

- **Develop a plan of action you really want to carry out, not one that is a reaction to a problem or a concern.**
- **Your plan of action should address every facet of your agricultural science education problem.**
- **Consider carefully all of the forces acting on your program, both internally and externally.**
- **Identify the potential internal and external partners and their roles in executing the strategic plan.**

table. Be sure to include alumni members, parents, students, agribusiness, the high school agriculture program and school administrators.

- Be sure that all partners, especially those unfamiliar with agricultural science education, understand the purpose and intent of community-based programming. Explain your program's purpose with those unfamiliar with agricultural education.
- Keep all key partners in the loop on developments in the process and include them in any final presentation of the vision and plan.
- Remember that not everyone that you have identified has to be or may want to be involved with every phase of the visioning and planning process.

Develop a Shared Vision for Your Program

Rather than trying to predict the future, the best course of action is to establish a vision of the future you desire and develop a strategy to achieve it, taking into account the forces of change. Visioning in its simplest form is studying the many future alternatives you may encounter so that you know how to better shape the one you desire. Visioning allows you to look closely at these two areas:

- What might happen (alternative futures)
- What you want to happen (the preferred future)

The following are tips to building a vision:

1. Make it achievable within a specific time frame.

2. Develop one that expresses the ideal situation—what you are striving to become, why you do what you do and what will come of your efforts.

3. Base your vision on a common goal that brings people together.

4. Include the highest aspira- tions for what you believe is possible.

5. Adopt a vision that reflects truly shared aspirations that are a product of this process.

Engaging in Strategic Planning

Many strategic planning efforts you have experience with may be driven by short-term issues that work toward the future in small increments. However, in the strategic planning process for an agricultural science education program outlined here is designed more to use your vision to pull you toward the future you wish to create. The following steps are typically part of the planning process that sets strategic priorities and develops an action plan for implementing them:

- Study the trends that may affect your program in the future to give you an idea of the future environment in which you will operate. Typically the informa-

tion you will look for falls into several broad categories:

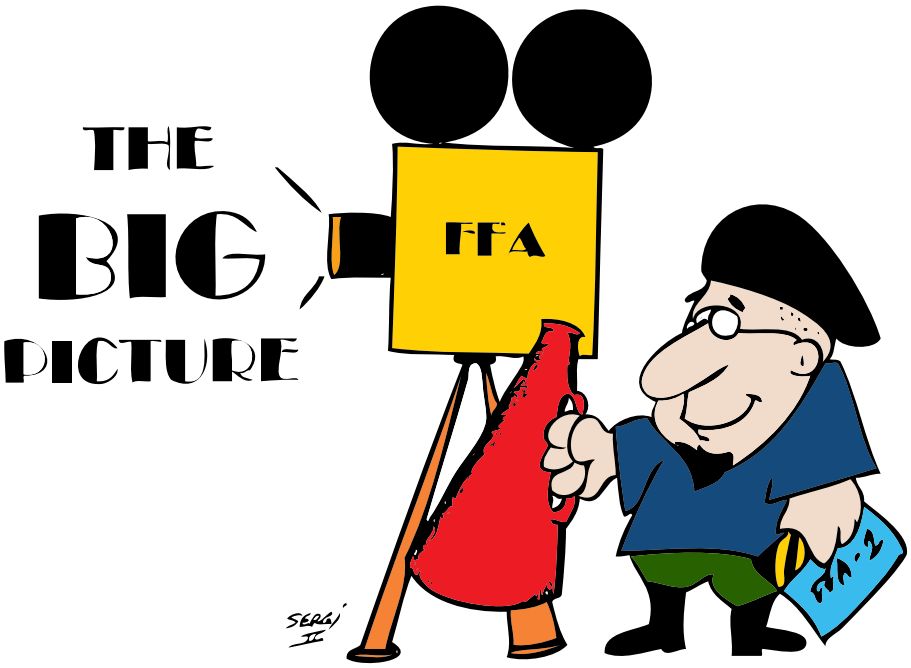
- Demographics
- Economics
- Social change
- Educational trends
- Government policies
- Agriculture
- Business
- Careers

- Identify any barriers that may block you from implementing your plan.
- Assess the strengths and weaknesses of your program, especially in the areas in which you face challenges.
- Identify any specific opportunities and threats facing your program.
- Set achievable goals and strategic priorities to reach your vision.
- Use simple statements of goals and the actions needed to reach them.
- Set some short-term goals to put things into action when you implement the plan.

Implementing Your Strategic Plan

In implementing the developed strategic plan there are a few essential elements to remember:

- Involve a steering committee composed of your local advisory committee, school administrators, teachers and other key partners in implementing your plan.
- Follow-up and keep everyone who participated in the planning process informed of your progress.
- Makes an honest effort to include people's ideas in your work if you asked for input.
- Recognize people for their work and effort.
- Put the completed plan into action; do not just let it sit on a shelf.
- Celebrate each success to ensure that you accomplish your plan.
- All the other six keys to a successful agricultural science education program listed below should be based upon your shared vision, mission and plan of action.
  - Classroom and laboratory content
  - The direction of student's SAE programs
  - FFA activities
  - Partner relationships
  - Marketing initiatives
  - Professional growth activities



CHAPTER 9

The Fifth Key: Marketing

When asked what is the number one challenge in their profession many agricultural educators identify time management as the number one concern. When you consider managing an FFA chapter, creating a quality instructional program and engaging students in SAE the workload can become tremendous. Many feel suffocated under an ever increasing workload of diverse student needs, administration expectations and national education initiatives. Also each individual needs to balance the needs and concerns of their professional life with needs and concerns of their personal life. This life-work balance is critical to maintain a healthy perspective in both roles. How do you balance all the needs on your time? How do you help each student be successful and get the most from the program they possibly can? How do you obtain relief from stress?

The key to managing your workload and creating a successful agricultural science education program is focusing on those activities that are important to your customers. Do the right things, and not everything. To know who are the customers of your agricultural science education program in both the school and community you must devise a strategy to market the program effectively and evaluate through marketing the support from your customer base. Through effective marketing you will:

- Save time when you define local success and focus on what's important.
- Identify and recruit volunteers to assist you with tasks.
- Maximize human and financial resources for your program.
- Increase funding and ensure program survival through strong community support.
- Gain recognition and identity for your program.
- Plan and implement curriculum and programs that meet the needs of your customers.

National FFA has provided many wonderful resources, such as the National FFA Guide to Local Program Success and The Agriculture Teacher's Manual that provide information and ready- made templates to use in your program marketing strategy. Within agricultural science education and FFA we have a simple phrase that helps reminds us of the basic principles of marketing:

Whether you are a middle school teacher or a high school teacher, this simple phrase will serve you well. **GASP** helps you remember that the first step to marketing your program effectively to customers is identifying who your customers are. Below are some quick and easy steps to identifying key customers:

1. Form a marketing committee made up of a variety of leaders from the school and community: agricultural educator, principal, parents, key

General community
Administrators
Students
Parents

for

Ask
Involve
Recognize
Report

Identify key customers

Develop a plan

business leaders, and students.

2. Brainstorm with this group to identify key individuals in each of the major customer categories under GASP.

3. Gather all information that you need to invite these key people to participate in appropriate program functions and to be a part of your process: names, titles, phone numbers and mailing addresses. Review and update this list from time to time and gather key messages from your program that would be of interest to these potential partners.

AIRR helps to keep us on track with developing a plan to market our program to key community leaders and contacts once they have been identified. The boxes at left detail best practices on how to **A**sk, **I**nvolve, **R**ecognize and **R**eport as a part of your program marketing strategy.

Public Relations Ideas

Support from the school and community for the agricultural science program and FFA chapter is essential for long-term success. To strengthen the FFA chapter and agricultural science program, students might adopt the following suggestions:

Ask:

- **Join civic organizations and ask what they expect from the agriculture program.**
- **Conduct formal interest surveys of students, parents and partners to determine needs.**
- **Conduct an annual focus group with all your partners under GASP.**
- **Visit students and parents at home at least once annally.**

Involve:

- **Ask businesses to allow your students to job shadow for a day.**
- **Conduct open houses with structured agendas and invite parents and community members into your program.**
- **Make sure FFA is visible in community festivals and fairs.**
- **Put key partners on the mailing list for a chapter newsletter to inform them of chapter activities and successes.**

Recognize:

- **Recognize student achievement over the school loudspeaker or intercom.**
- **Conduct a local recognition banquet for your students to reward them for achievement/participation and invite parents, administrators and community members.**
- **Recognize community members, parents and administrators who have made contributions to the chapter with appreciation certificates or other honoary awards.**

Report:

- **Take advantage of National FFA Week, National Ag Day and other events to publicize the chapter.**
- **Highlight chapter events and achievements through local media outlets.**
- **Prepare brochures and flyers that tell about chapter events and how the program affects students and the community.**
- **Develop a monthly chapter newsletter to be sent to members, parents, administrators and community partners.**

- Promote chapter happenings and member accomplishments through:
  - school newsletters
  - newspapers
  - specialized radio programs
  - bulletin boards
  - window displays in local businesses
  - presentations to communi ty groups
- Create a display of project work and set it up at a school board meeting, reports on class/chapter activities and report on them to the school's parent support group or parent-teacher association.
- Create a scrapbook of photos and captions illustrating chapter activities. Display it at school events and chapter programs. Make sure all involved students are in the photos.
- Create or gain access to hallway display cabinets and walls to feature agricultural projects and events.
- Create a slide show of chapter and student activities.
- Use business cards as an agriculture instructor. It helps highlight that you are a professional.
- Conduct an open house to invite parents and the community into your program to see your facilities and examples of the work students do in your program everyday.
- Promote every positive effort made in the program through local media. Not only should you report successes to the media but invite them to your local activities so they can report with first-hand knowledge.
- Remember that marketing your program within the school walls is important. Make sure administrators, guidance counselors and faculty are invited and aware of what is going on in your classroom and FFA chapter.

This requires an understanding of the philosophy of SAE and a commitment to the educational value of SAE by the teachers, administrators and the parents.

CHAPTER 10

The Sixth Key: Partnerships

Another area that can help relieve stress and help an agricultural educator balance his or her workload is establishing formal partnerships for the program and chapter. Many agricultural educators feel as though they have to do it all themselves. This can lead to burn out on the part of the agricultural educator. Many have realized that developing formal relationships with key partners that take an active role in the chapter have proven benefits on the sustainability of the program, the achievement of students and the work-life balance of the agricultural educator.

By working together with key partners the agricultural educator can become a "manager of resources." By doing this, the agricultural educator can ease their workload and focus on the bottom line: facilitating learning. Your key partners in the school and community can help you obtain supplies, plan events, market your program, offer educational opportunities for students and provide moral support. Once you convince key partners of your program's benefits they will sell it for you. Building a network of partners, allies and volunteers will help you:

- Accomplish more as partners fulfill specific tasks that support the local program.
- Avoid burnout by having more time and resources to plan new activities.
- Increase the influence and impact of your program.
- Ease your workload.
- Build credibility within the school and community.

Steps for Success in Building Strong Partnerships

Step 1:

Identify Potential Partners

The first step to developing key partnerships is understanding what potential partners exist in your community. If you are not familiar with the community, then you need to identify people who can help you identify those who would have a strong interest in seeing the agricultural science education and FFA chapter succeed. In every community there are many potential partners; you just have to find out who they are and how to establish contact. The following details what potential partners exist and how they can help aid you in the management of a solid agricultural science education and FFA program.

Potential Middle School Partners

- Parents
- Administrators
- Colleagues/Faculty
- Guidance Counselors
- Local Businesses
- Advisory Committee
- Local FFA Alumni Affiliate
- Local High School Ag Program
- Community and Civic Organizations

Step 2:

Identify Benefits of Involvement for Partners

For each potential partner you need to identify the benefits that they will receive from their involvement with the chapter.

Understanding why they want to participate is critical to structuring the message to recruit them. For the potential partners listed under step one, here are a few examples of why these partners will want to be involved and how they can help you in establishing a strong program.

Parents—

Parents are natural partners. They have a vested interest in the success of their children and can serve in a number of volunteer roles within the chapter. They can help set up chapter events, serve as chaperones and, if

knowledgeable of agriculture, can help supervise students in classroom and FFA activities.

Administrators, faculty colleagues and guidance counselors—

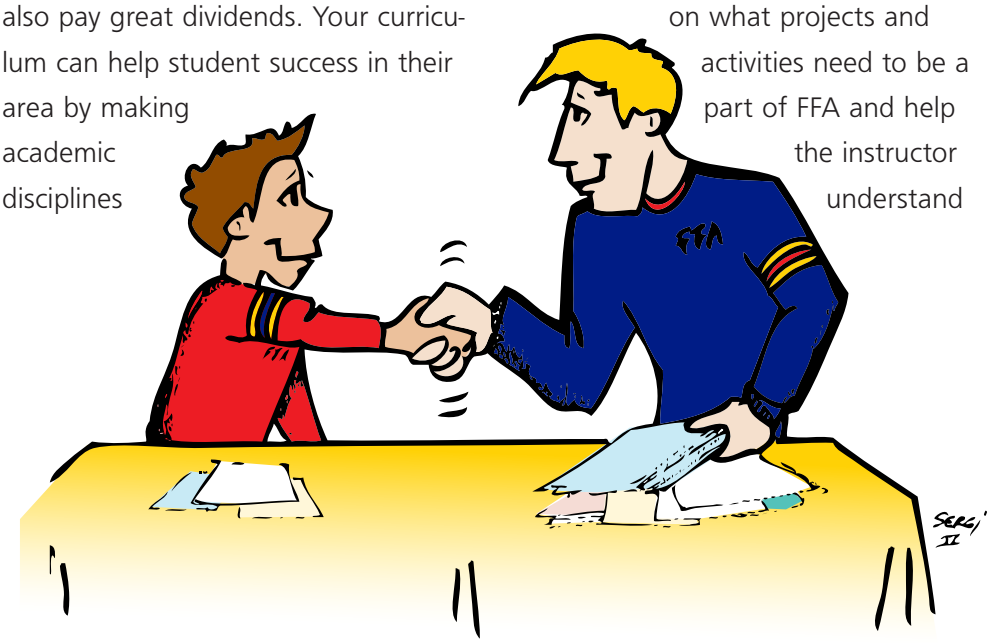
Administrators love programs that reflect positively to the community. The opportunity for students to learn and achieve both chapter or individual recognition through your program will be an interest to school administrators. The integral nature of agricultural science education with other disciplines can also be a key area of interest to your administrators, faculty and guidance counselors. If you can show how your program improves test scores and student achievement school wide, then your administrator will be more likely to lend strong support to the program. Gaining support from your administration and guidance departments are essential to program survival. Building a strong bond with colleagues on your faculty can also pay great dividends. Your curriculum can help student success in their area by making academic disciplines practical and there are also wonderful opportunities to share resources and facilities.

Local businesses—

Local businesses like to be a part and a productive member of the community. They also have a strong interest in the community workforce and like to support programs and activities that build skills within potential future employees. Also, by supporting the local agricultural science education program they can reach out to potential customers. Local business can sponsor FFA activities and projects or serve as a host for educational opportunities such as job-shadowing experiences.

Advisory committee—

Advisory committees serve important roles for agricultural science education programs. Mainly this group has an interest in agricultural science education and can help you keep a community focus. They can advise on what projects and activities need to be a part of FFA and help the instructor understand how the curriculum can address agricultural and youth concerns locally.



Local FFA alumni affiliate—

Organizing a local FFA alumni affiliate can help an FFA chapter tremendously. This group consists of community members who have an interest in agricultural science education and a willingness to serve the local chapter. Contact your state FFA alumni association for information on how to start a local alumni affiliate or visit www.ffa.org for resources provided by the National FFA Alumni organization. Alumni members help agricultural educators in a variety of ways, such as organizing educational programs/activities, fundraising or serving as mentors and chaperones for your students.

Community and civic organizations—

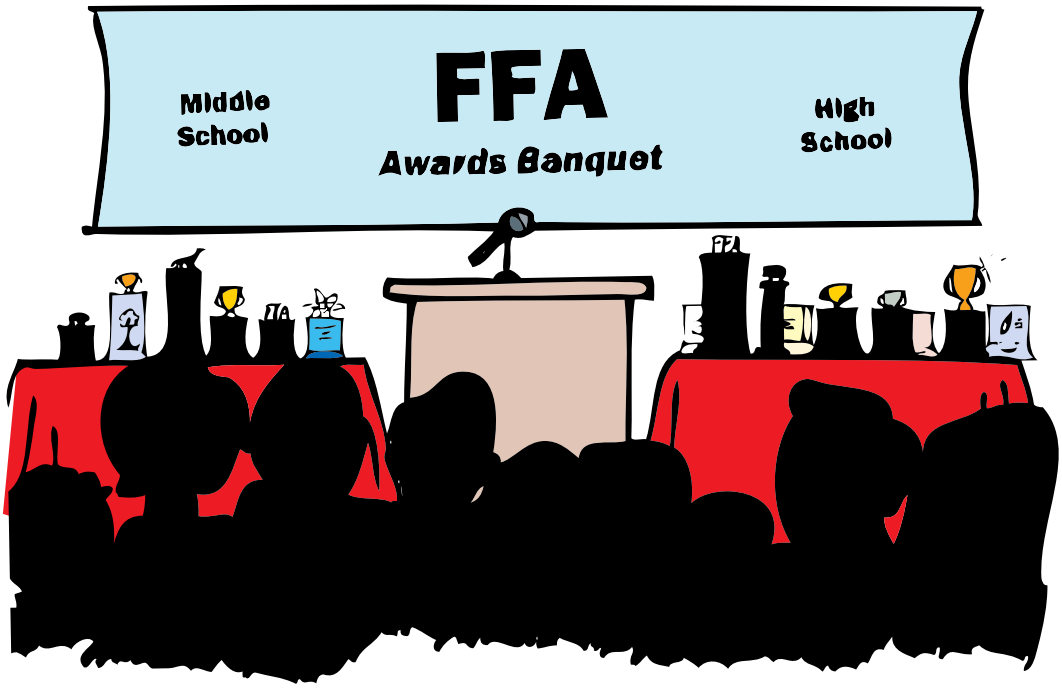
FFA chapters within their program of activities share many common traits with community and civic organizations. Both types of organizations seek to build skills within a target population, are community focused and strive to serve others in a positive way. Partnerships with these organizations can be very beneficial. They understand the needs of the community and have developed their own projects and programs around those efforts. These organizations are looking for volunteers, and FFA members can aid in these efforts, which also helps build community service activities in your chapter. A great way to

build these partnerships as an agricultural educator is to join local civic and community organizations where possible.

Collaboration with High School Agricultural Science Program

Many middle school agricultural science programs are in districts that also have high school programs. Although not subsidiaries of the high school programs, middle school agricultural science teachers should establish a good working relationship with their high school counterparts. When possible, middle school and high school programs should collaborate to efficiently and effectively deliver a total agricultural science program. Possible collaborative activities include:

- high school students as guest speakers in middle school classes.
- sharing facilities and equipment.
- middle school and high school teachers jointly supervise student projects.
- conducting a combined end-of-the-year awards banquet.
- coordinating field trips and other related travel (i.e., FFA conventions and events).
- sharing alumni, booster, and advisory groups.
- coordinating curricula to allow a smooth transition from middle school to high school with little or no over lap of course content.
- middle school and high school teachers share responsibilities for preparing students for FFA events.



CHAPTER 11

The Seventh Key: Professional Development

Balancing one's personal and professional life can be a challenge. It is easy to experience burnout when we lose sight of what is really important to our personal well being, our program and our professional growth. If you want to have a successful program and be fulfilled personally and professionally, you must keep growing. Creating a Vision and Mission for Your Professional Development Plan

There are three simple steps to creating successful growth as a professional. The first step is creating a vision for your program, teaching philosophy and developing annual and long-range professional growth plans. Agricultural educators must stay abreast of changing times and new technology as well as the needs of their students, school and communities. Failing to deal with these in new ways and without proper planning can lead to burnout and ineffective teaching while pursuing new ideas and solutions can lead to professional fulfillment and satisfaction.

QUICK CHECKLIST: Professional Growth

- ❑ **Create a vision for your**
- ❑ **program and teaching philosophy and develop a professional growth plan to accomplish it.**
- ❑ **Commit to lifetime learning.**
- ❑ **Revitalize the profession and your program. Recruit students you think would benefit from agricultural education and be good teachers.**

Below are a few quick suggestions on how to begin addressing your professional vision:

Know your job description.

- Are you meeting the expectations of your employer?
- What tasks are you performing that your administration may not be aware of?

Take measurement of where you are now so you can see where you want to go.

- Engage your administration and community to help you with this self-assessment

Develop a teaching mission, value or goal statements that clearly articulate your classroom and programmatic priorities.

Creating a Teaching and Mission Statement

1. Ask yourself the following questions:

- **Why did I start teaching?**
- **What do I want students to learn as result of my teaching?**
- **What's important in my life?**
- **What will I be doing in six months, one year and five years from now?**

2. List and evaluate your answers. Set personal, professional and career goals around your answers.

3. Write a mission statement that relates to where you want to be and what to be doing long term.

As you plan each day review your mission/values and goals to focus on tasks that are important

Regularly access your teaching and personal performance.

- Ask faculty members, administration and key community members to help mentor and evaluate you from time to time.

Create annual and long range programmatic plans to help guide you with your professional growth

Create a portfolio to track your success in the classroom and FFA

To develop a complete professional growth plan you must set personal and

professional goals that address your program's needs and fulfill the expectations of your position. Annual and long-range program plans contain your entire program needs and priorities based on community, parental, student and administration input. Based on this you should set forth a series of specific and measurable goals for the professional growth activities in which you should participate. Make sure that you secure the needed resources to accomplish these goals. Once you have developed a plan and secured resources, ask for feedback from your administration, parents, advisory board, etc. The following is a brief list of items you want to have as a part of your professional growth plan:

Specific growth and continuing education needs.

For example, if you are building a new greenhouse, you may want to enroll in facility management training

Ways to keep current with existing and emerging technologies.

Establish internships with local agribusinesses on how they use technology in their area or what technology they are providing to agricultural producers. You may also choose to participate in established information technology trainings that are delivered in your area. Professional and summer conferences.

Review what opportunities for annual meetings exist in your state and get registered. Many states provide a host of trainings on curriculum, FFA activities and technology at annual summer and mid-winter meetings. For many of these you can apply for funding and arrange time off to attend. Your state agricultural education staff can give you direction on when these conferences take place.

Commit to Lifetime Learning

A major part of professional growth is to take part in annual activities that sharpen skills, allow you to meet and share with peers as well as develop plans directly related to your programmatic challenges. There are many ways that you can become a lifetime learner. Many of these techniques include but are not limited to the following:

- Join your professional organizations such as NAAE and ACTE. These organizations offer a host of leadership and professional development activities. Get involved on the state level and serve on focus groups, committees, task forces and maybe even serve in a role as officer to represent your peers and colleagues.
- Stay informed by subscribing to and reading professional, educational and agriculture related journals and publications.
- Enroll in courses, seminars, workshops or continuing education courses that help update your knowledge and count toward renewing your credentials or certification. These can aid you gaining new ideas and resources for your classroom. Make sure you list these in your professional growth plan and share them with your administration.
- Seek an advanced degree. This can have professional as well as financial impact on your career and competence. You also may

want to check out opportunities such as National Board Certification in your discipline

- Attend as many regional, state and national conferences as possible.

Help Revitalize the Profession

To ensure that future students will continue to benefit from agricultural science education, an abundant supply of potential agricultural educators must be recruited into the profession. Currently, there are not enough qualified teachers entering the profession to adequately replace those who are retiring or leaving for other career opportunities. In many states, this, coupled with an increase in the number of schools offering agricultural science education, enhances the concerns. As agricultural educators we must be willing to support that need by recruiting students that would make successful teachers. This may seem hard for the middle school level but the seeds of career choice are sown early. By being committed as a professional to your craft, you will give your students a positive representation of the profession. Your actions can exert an influence that will stay with that student for a long time and has the potential to impact their impression of agricultural science education. Identify students that may have this interest and help foster and grow that interest.

The end result of this process is what we do for students. As educators, we must ensure that we are adequately prepared and have a program in place that helps students achieve positive results and success. You can accomplish this by staying committed to profes- sional growth. Through professional growth, agricultural educators are able to increase their personal motivation, renew their teaching credentials/certifications, and ease stress by concentrating on important issues and becoming a manager of resources. This allows teachers to spend more time balancing their work and personal life.

APPENDIX A

Appendix A

Successful middle school agricultural science teachers have identified the following resources as having potential value:

FFA Resources

Official FFA Manual
Local Program Resource Guide
www.ffa.org
LifeKnowledge®
Charlie GreenHand Trivia Game
Food for America
SAE Guide
PACES (Preparing for Ag Career)

Text Books

Herren, R.V. (2002). *Exploring Agriscience.* Albany, NY: Delmar.

Morgan, E.M., Lee, J.S., and Wilson, E. (2004). Agriscience explorations. Upper Saddle River, NJ: Pearson/Prentice Hall Interstate

Curricular Resources

Project Learning Tree is a multidisciplinary environmental education program of the American Forest Foundation. Multiple resources are available for a broad range of topics.

Website: http://www.plt.org/

Address: 1111 19th Street, NW, Suite 780, Washington, DC 20036

Phone: 202-463-2462

Agriculture in the Classroom

Ag in the Classroom is an educational program coordinated by the United States Department of Agriculture. A wide variety of resources are available for teaching agriculturally related topics.

Website: http://www.agclassroom.org/

Address: 1400 Independence Avenue S.W., Stop 2251, Washington, DC 20250-2251

Phone: 202-720-7925

Space Agriculture in the Classroom

Space Agriculture in the Classroom is a joint project of NASA, the USDA, and the University of Florida. It is designed to boost interest in the space program, along with agricultural practices that relate to the space program. A variety of curricular materials and resources are available.

Website: http://www.space-ag.org/

Project WET

Project WET (Water Education for Teachers) is an educational program for issues related to stewardship of water resources. They have a variety of curricula materials and programs available.

Website: http://www.project-wetusa.org/

Address: 210 Culbertson Hall, Montana State University, P.O. Box 170575, Bozeman, MT 59717-0575

Phone: 866-337-5486

Project WILD

Project WILD is an educational program of the Council for Environmental Education. They offer a variety of curricular materials and resources about environmental education and conservtion.

Website: http://www.projectwild.org/

Address: 5555 Morningside Drive, Suite 212, Houston, TX 77005

Phone: 713-520-1936

USDA for Kids

USDA for kids is a collection of links to USDA and affiliated programs for students.

Website: http://www.usda.gov/news/usdakids/

National FFA Organization

The National FFA Organization offers a wealth of resources available for agricultural science teachers and for operating an FFA chapter.

Website: http://www.ffa.org/

Address: P.O. Box 68960, 6060 FFA Drive, Indianapolis, IN 46268-0960

Phone: 317-802-6060

Instructional Materials Service, Texas A and M University

IMS offers a variety of curricular materials and other resources. Many of the materials were developed for high school agricultural science classes, but could be adapted for middle school.

Website: http://wwwims.tamu.edu/

Address: 2588 TAMUS, College Station, TX 77843-2588

Phone: 979-845-6601

Curriculum and Instructional Materials Center, Oklahoma Department of Career and Technology Education

CIMC offers a variety of curricular materials and other resources. Many of the materials were developed for high school agricultural science classes, but could be adapted for middle school.

Website: http://www.okcareertech.org/cimc/index.htm

Address: 1500 W. Seventh Ave., Stillwater, OK 74074

Phone: 800-654-4502

Curriculum Materials Service, The Ohio State University

CMS offers a variety of curricular materials and other resources. Many of the materials were developed for high school agricultural science classes, but could be adapted for middle school.

Website: http://cms.osu.edu/

Address: 1114 Chambers Rd., Columbus, OH 43212-1702

Phone: 614-292-4848

State Level Resources

In each state, the following resources may be available and valuable:

- The state FFA association office
- University departments of agricultural science education
- Cooperative extension service
- State department of education, career and technology and/or agricultural science education divisions
- State department of agriculture
- USDA field offices
- National Middle School association. NMSA Provides resources both for understanding and advancing various aspects of the middle school concept and for assisting classroom teachers in plannig for instruction.

Website: www.nmsa.org

APPENDIX B

Appendix B

Middle School Agricultural Science Learning Activities

Tell the Agriculture Story

Purpose: Students learn more when they share their lessons with others. Make initial contacts with teachers, club advisors and community group leaders that might host presentations. Examples might include local Lions, Kiwanis, or other civic groups, gardening or special interest clubs, elementary students, etc.

Preparation: Develop idea lists of:

- agriculture and class-related topics students might share with others.
- audiences to which students might make presentations.
- visual, verbal and hands-on ways to tell the agriculture story.

Action: Ask students to develop plans for how they will tell the agriculture story to a group outside the class, either individually or with one or two other students. Each plan should explain the message (what), audience (who), setting (where), schedule (when), benefit to the audience (why) and technique(s) to be used (how). Allow class time for students to research, develop and make arrangements for their presentations. Review information for accuracy. Hold practice sessions. When students present to classmates, help students confirm arrangements. Observe as many presentations as possible.

Follow-up: Ask students and audience members to evaluate the presentations and what they learned about agriculture. Display presentation materials throughout the classroom or hallways

Science Fair Awards

Purpose: Emphasize the role of agriculture in a broad range of areas by recognizing entries in the local school science fair that relate to agriculture.

Preparation: Arrange for promotion and presentation of the prizes with science fair coordinators. Obtain or create recognition items for all agriculture related entries, as well as a prize winner. Budget to fund a $25 savings bond for the top entry by a student or team of two or more students.

Action: Ask students to visit the science fair and identify all entries that relate to agriculture. Recognize these entries by adding a tent sign, with permission of the event's coordinators. Have middle grade FFA leaders or another select group of students, who are not entered in the science fair, choose the best agriculture-related entry by a team or individual. Arrange for a student to announce the agriculture related entries and present the savings bond during the fair's awards ceremony.

Follow-up: Invite students who created agriculture-related entries to take agricultural sciences classes and/or join the middle school FFA chapter. Have students write and submit an article about the entries to school and community papers

Whiz Quiz

Purpose: Test-review activities.

Preparation: Create a stack of cards containing multiple-choice fact and open-ended questions related to class lessons. If desired, obtain and set up two sets of buzzers.

Action: Divide students into teams of five to six people, each with a range of interests and abilities. Ask other students to be moderators, judges, scorekeepers and timers. Seat two teams at the front of the room, with the moderator and judges in the middle, facing them. As the moderator reads each question from the card stack, the first team to signal has the opportunity to answer the question. Teammates may confer for 10 seconds before answering. The timekeeper enforces time limits, and the scorekeeper records points (see "Scoring," below). Judges help determine which team signaled first (if necessary) and whether an answer sufficiently matches the acceptable choices. Teams "play" in 10-minute rounds so all have a chance to participate. Rotate teams of five to six people. Or add a

sports element to the activity. Draw a playing field on a board and move a ball. Review for tests playing football. Divide class in half. Ask a student a question. If answer is incorrect, then ask the other team's player the same question. If answered correctly, fumble occurs and then that team stays with the ball.

Required Materials: Visual of playing field

Scoring: Scoring would be similar to the sport chosen (football, soccer, baseball, basketball, etc.,). Each question is worth 10 points to the team that answers it correctly. If a team signals first but gives an incorrect answer, the other team is given the opportunity to answer it correctly.

Follow-up: Emphasize that the activity is a fun way to review lessons, not a win/lose situation. Present small prizes or certificates to each team with, perhaps, a special privilege awarded to members of the top-scoring team

Agricultural "Jeopardy"

Purpose: Motivate students to learn and to review lessons with an adaptation of the popular television game show.

Required Materials: "Jeopardy" board

Preparation: Imitating the television answer-and-question show, create a large "game board" using lightweight insulation sheeting, construction paper, fabric or paint and attach library card pockets in five rows under five columns/categories. Develop category headings that relate to current class lessons, or try the following topics: agriculture and math, U.S. and world agriculture, agriculture riddles (for fun), plants, livestock products, and livestock. If desired, obtain and set up three sets of buzzers. Create or have students create cards with the question on one side and the corresponding answer on the other side.

Action: Divide students into three teams, each having three students. Ask other students to be moderator, timekeeper and scorekeeper. Seat the three teams facing the game board, with the moderator, timekeeper and scorekeeper to one side. Copy the TV show's format. A team chooses the category and point value, then the moderator reads the answer that's revealed. The first team to signal has the chance to provide the correct question within 10 seconds. If the answer is not correct, either of the other two teams may signal and respond. The timekeeper enforces time limits, and the scorekeeper records points (see "Scoring," below). Teams "play" in 10-minute rounds so all have a chance to participate. Rotate teams of three students.

Scoring: Each correct question earns the number of points selected on the game board.

Follow-up: Emphasize that the activity is a fun way to review lessons, not a win/lose situation. Present small prizes or certificates to each team with, perhaps, a special privilege awarded to members of the top-scoring team

'Round Towner Tour

Purpose: Introduce students to the variety of agriculture-related occupations in their own neighborhood or community.

Preparation: Arrange logistics and funding in accordance with school policy. Contact local work sites to inquire whether they would con-

sider hosting a tour.

Action: Ask students to help identify local worksites that involve agriculture related jobs, and then narrow the list to four or five places that most interest them. Arrange visits to these sites if possible. Don't miss flower shops, nurseries, grocery stores, lumber mills, grain mills, feed stores, general stores that sell agricultural supplies, greenhouses, farm implement dealers, or egg farms. Map out a route among sites. Ask students to brainstorm questions they might ask about the career. Make the tour fun, with a large 'Round Towner Tour banner and special buttons or badges. Make extra buttons or create certificates for students to give to the tour hosts and others they meet.

Follow-up: Ask students to prepare a written or oral report about what they learned on the tour. Focus on identifying the various careers and education needed for each career. Also involve them in writing thank-you letters to tour hosts

Job Shadowing

Purpose: Observing agriculture-related workers on the job gives students a taste of potential careers.

Preparation: Identify local residents who work in agriculture-related jobs and explore whether they might be willing to have one or two students observe them at work for part of a day. You could involve the employers visited at the 'Round Towner Tour or students may have relatives who work in an agriculture-related career and would be willing to participate. Prepare a list of names and brief job descriptions to share with students.

Action: Share information about agriculture-related jobs with students. Talk about the agriculture-related jobs in your community, and have students choose someone they would like to "shadow" on the job during one or two class periods or after school hours or on weekends. Put students in touch with these mentors, and oversee the logistics of the shadowing experience. Review appropriate dress and behavior with students. Help them think through things they might look for and ques-tions they might ask that will help them learn about the person's job.

Follow-up: Ask students to prepare and share a written and/or oral report about what they learned during job shadowing. Ask each to write a personal thank-you letter to the person he or she shadowed

"When I Grow Up" Display

Purpose: Encourage students' creativity and interest in agricultural careers with this activity.

Preparation: Create a large bulletin board with the heading, "When I grow up, I want to be in agriculture as a ...." Collect magazines, classified ads, catalogs and other materials from which students can clip pictures and phrases related to agricultural careers.

Action: Share information about emerging agricultural careers with students. Ask each student to complete the bulletin board heading by selecting an agriculture-related job that interests them. Encourage them to think of creative jobs, like being a farmer on the first space colony or developing bioengineered foods. Have each student create a collage of pictures, drawings and words that represent his or her career choice and add it to the bulletin board.

Follow-up: Ask students to write reports describing what education they will need to complete to prepare for their career choice. Interview with local agribusiness people.

APPENDIX C

Appendix C

Middle School Agricultural Science Personal Growth Activities

A key goal for middle school agricultural science teachers is to help students learn more about themselves and how they can be positive, contributing members of the larger society. The activities that follow support development of students' personal and interpersonal skills through agricultural science in the areas of team building/cooperation, communication, problem solving/decision making, goal setting, community involvement, leadership and addressing issues related to agriculture.

Within each area, the "Key Concepts" segment summarizes basic information/messages to be imparted to students. "Teachable Moments" suggests ways to reinforce these concepts in everyday class/club interactions. "Activities" provides ideas for brief, student-involving lessons.

Team Building/Cooperation

Key Concepts

- People work in teams in all facets of life—family, work, and in the community.
- Learning to work as part of a team will help students function more effectively in class, outside the-classroom, school, community settings and at home.
- Team skills are important for future success in careers in agriculture and other fields.

Teachable Moments

- Encourage students to work in teams on classroom, lab and club activities. Monitor involvement to make sure each individual contributes to team success.
- Stress the team nature of student organization/FFA participation. Encourage students to develop team slogans and/or logos and use them on banners, shirts, posters, etc.

Activities

Agriculture Ads: Divide students into teams and have each group choose an agricultural product with which to work. Present, or have students research, basic information about advertising and marketing. Students then choose a medium—newspapers, television, radio or magazines—and develop an advertisement for their chosen product that would work in that medium. Each team presents its ad to the rest of the group.

Team Skiing: Drill four holes, evenly spaced down the center of two 6-foot lengths of 2" x 4" board. Cut eight three-and-one-half- foot lengths of rope. Insert each through one of the drilled holes and knot at bottom and top. Have four students stand with one foot on each board, then lift the ropes to "ski" across the floor. Try increasing and decreasing the number of students to demostrate that more team members require more coordination, but also create more fun.

Strong Links: Give each student a 2" x 11" strip of colored paper. Ask students to write their names on one side of the slips and three things they do well on the other side. Cluster students in groups of five to tell each other the things they do well, and then staple their slips together to create a short paper chain. Join these chains together into a larger one representing the whole group. Discuss how important it is that each person participate in class/FFA activities. Every person brings unique talents to the group. It is all of those talents that make a group strong. Good leaders recognize these talents and make every person feel important to the group. Celebrate the diversity in each person and the positive impact his or her talents will have on the group. Display the chain in the classroom or lab. This activity could be adapted by turning this into an evaluation activity by asking students to write their names on one side of the slips and three comments about their role in a team activity on the other.

Participatory Pizza: Divide students into groups of eight, and give

each group a prepared pizza crust and selection of toppings. Working as a team, each group decides what toppings to put on its pizza, then assembles it. Each student must take charge of at least one topping. While pizzas bake in the cafeteria or foods lab ovens (be sure to arrange this well ahead of time!), students discuss what it was like to create a pizza everyone could agree on. As they enjoy the tasty results, review the agricultural products represented and processing required for each pizza ingredient. Emphasize the importance of teamwork and creative problem solving in all areas of life.

Build from a Bag: Divide students into small groups of three to five students. Give each group glue, scissors and a paper bag containing an assortment of items: drinking straws, bottle caps, small pieces of wood, fabric scraps, confetti, balloons, FFA emblem stickers, etc. Each group must create and name a three-dimensional structure using the items in its bag. All group members must agree what the structure will be, then help create it. After groups share their creations with the rest of the class, ask them to identify comments, attitudes or behaviors that made it easier or more difficult to work as a team. Communication

Key Concepts

- All people constantly communicate in verbal and nonverbal ways.
- Communication includes writing, speaking, listening and visual skills students use at school, in the community and at home.
- Learning to communicate well leads to stronger relationships, more success in school and club projects, and broader and more successful career options in the future.

Teachable Moments

- Encourage students to express their ideas, feelings and beliefs during classroom, lab and club activities.
- As part of each class, lab or club activity, ask students to identify the ways they have communicat- ed and have them evaluate how well they have expressed their thoughts and ideas.

Activities

Picture This: Pair students and have them sit back to back. Give each six toothpicks. Have one student in each pair lay out a design with the toothpicks. That student then has to describe the design so his or her partner can duplicate it with toothpicks. The partner then compares the original design with the attempted duplicate. For phase two, the second student designs with toothpicks and describes it to the other. Reconvene the group and have students discuss elements of the situation that made communication easier and what made it more difficult.

Team Speeches: Have teams of three or four students draw for an extemporaneous or impromptu speech topic related to agriculture. Demonstrate how/where to find library references. Have them develop the speech content together and present it to the class. Each team member must give part of the speech. Use a similar team approach for prepared speeches.

Visor Reality: Write various communication behaviors—"ignore me," "agree with everything I say," "interrupt me," "smile when I speak," etc.—in 1.5" letters on strips of paper and attach them to visors, hats or headbands. Divide students into small groups of three to five students and place a visor on each student's head, making sure the individual does not see what his or her visor says. Ask groups to follow the visors' "instructions" for communicating with each person as they discuss ideas for a community improvement project related to current course work. After 5-10 minutes, have each student try to guess what was written on his or her visor. Discuss how different behaviors enhance or inhibit communication.

"I Am Pleased to Present...": Show students a video of a speaker introducing the next presenter. Pair students and give them five minutes to interview one another about interests, hobbies, backgrounds, etc. Each student then "presents" his or her

partner to the group with a one- to two-minute introduction.

Video Pen Pals: Exchange student-created videotapes about your community's agriculture with middle grade students studying agriculture in another locale. First, have students choose a location that interests them. Contact the state education department or FFA Executive Secretary for that state and request teacher names and addresses for middle grade programs. Have students choose one or two schools, then send letters asking if their counterparts would be interested in exchanging videos. Once a partner school has been confirmed, students create a videotape about local agriculture, their school and favorite activities, then send it to their "video pen pals." When the exchange school sends its video, students watch it together and discuss the differences in agricultural careers, products and practices in the two locations. Letters can be exchanged or e-mail can be used to continue communications with other students.

Problem Solving/Decision Making

Key Concepts

- In today's ever-changing, technologically advanced world, people must solve problems and make decisions on a daily basis.
- Learning and using a problem-solving process can lead to better decisions. Such a process usually involves identifying and analyzing the problem, generating multiple solutions, choosing a solution, planning action, acting and evaluating results.

Teachable Moments

- Encourage students to use the problem-solving process when developing student organization/FFA projects.

Activities

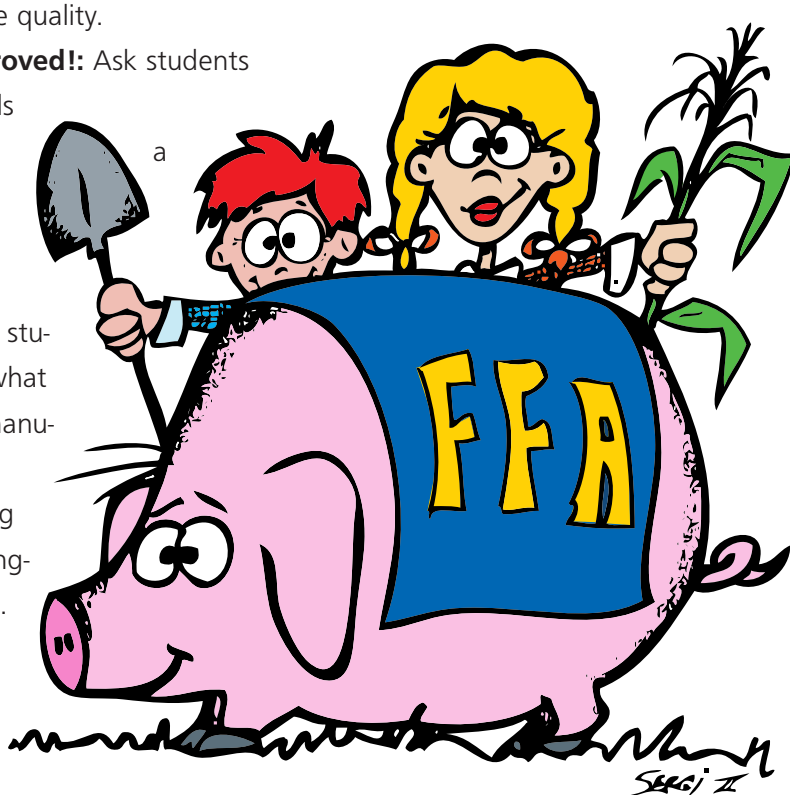
"Smartie" Decisions: Help students visualize the pros and cons of potential decisions. Each time students suggest a potential positive or negative effect of the decision, add a piece of candy to a "pro" or "con" pile, as appropriate. Discuss using pros and cons to make decisions, as well as how one weighs the quantity of reasons against the quality.

New! Improved!: Ask students to bring in labels that claim a food product is new or improved. Have small groups of students analyze what problems the manufacturer may have been trying to solve by changing the product. Then generate other ways to address those problems and share their options with the class.

Agricultural Engineers: Ask student groups to identify a problem in agriculture, then design a product, service or machine to address it. Depending on your time frame, this might be a brief activity generating creative ideas or a longer-term project resulting in group presentations complete with computer-generated designs

Examples:

- Problem: Need to increase demand and raise prices for orange crop. Solution: Invent a cereal that's topped with orange juice instead of milk.
- Problem: Too many lawn clippings enter landfills. Solutions: Educate public about compost-



ing methods. Provide community composting service.

- Problem: Lawn mowing involves too much walking. Solution: Invent a remote-controlled (solar-powered) lawn mower.

Goal Setting

Key Concepts

- People who decide what they want, and set goals and step-by-step objectives to achieve them, are more likely to be successful.
- Goals might be short-term, intermediate or long-term.
- Goals can be changed or even dropped as a person learns more and establishes different priorities.

Teachable Moments

- Reward students who set personal goals by offering extra points for those who complete additional projects. To earn a higher grade, students learn more material. Make sure the extra assignments can be completed by students of any ability, as long as they work hard.

Activities

Personal Cheering Sections: Have students select two or three classmates with whom to share class-related Merit Award or personal goals. Once a week, allow time for 10-minute "cheering section" exchanges, when students update their personal cheering sections on recent challenges and successes related to their goals and brainstorm solutions to any difficulties.

Star Goals: Show an FFA video such as "Stars Over America" or "National FFA Convention Highlights" and have students list some interim goals that they think the stars had to set. Ask each student to identify a goal he or she would like to achieve through the FFA. Community Involvement

Key Concepts

- The American tradition of caring about and sharing with neighbors is a strong factor in our country's success.
- Young people can make a difference to improve the community.

Teachable Moments

- Involve community members with students as guest speakers, field trip guides, advisory committee members, etc.
- Take students into the community for class lessons and student organization/FFA activities—field trips, soil or water tests, service projects, etc.

Activities

Positive Influence: Invite a panel of community representatives—perhaps including an elected official, social worker, police officer, clergy member, etc.—to discuss the responsibilities of a good citizen and how young people can make a positive difference in the community. Allow time for the panel and students to brainstorm a joint community development project.

Agricultural Contributions: Have students analyze how agricultural-related enterprises contribute to the local economy, improve community members' quality of life and support community improvement efforts. Leadership

Key Concepts

- Leaders help groups operate in all areas of life—home, school, community and work.
- Successful leaders build positive personal characteristics, like fairness and reliability, and learn useful skills, like listening and parliamentary procedure.
- Being able to work as a group member under someone else's leadership is also an important skill.

Teachable Moments

- Offer all interested students specific leadership roles and responsibilities—from FFA officer to classroom helper for a week.
- Randomly assign various leadership roles—chair, spokesperson, recorder—during group work so students experience a variety of roles and practice related skills.

Activities

Leader Shadowing: Arrange for middle grade student organization/ FFA leaders to "shadow" senior high FFA officers as they perform leadership functions, like running a chapter meeting or participating in a community event.

Order, Please: Have students explore and report on systems used to maintain order and fairness when groups make decisions. Examples might include parliamentary procedure, a "talking stick" approach used by some Native American cultures, negotiation techniques or consensus building. Have students discuss advantages and disadvantages of each approach and identify situations in which each works well. Review types of leadership—authoritative, democratic, autocratic, participatory, etc.

"Points" of Order: Assign a point value to different ways of participating in a meeting—50 points for chairing a discussion, 25 points for making a motion, and 15 points for discussing. Hold a meeting to entertain motions of ways to improve the school/community and FFA activities. Any student that accumulates 100 points is "out" and can no longer participate in these ways. This ensures that quieter students have the opportunity to practice leadership skills. Present students' school/ community improvement ideas to the principal/ community leaders.

Mock Meeting: Have small groups of students research and develop an agenda for a meeting of the class or student organization. Each group then leads the class/chapter through its agenda.

Addressing Issues

Key Concepts

- There are many societal issues about which Americans have differing viewpoints—preservation of the environment and wildlife, prevention of crime and violence, use of pesticides, care and treatment of animals, etc.
- Many arguments related to these issues are based on emotions, but people usually make better decisions when they base their opinions on factual information.

Teachable Moments

- Maintain flexibility in lesson plans so students can discuss and explore issues as they come up, either in relation to coursework or in press or media reports.
- When students express opinions, challenge them to provide factual information, based on research that supports their stands.

Activities

Agriculture Headlines: Ask students to collect printed and/or videotaped materials—news reports, cartoons, letters to the editor, promotional brochures, fundraising letters, etc.—related to an issue that involves or affects agriculture. Have student groups analyze the samples and highlight emotional appeals in one color and factual arguments in another. After each group shares its findings, students discuss the types of appeals most often used by those on different "sides" of the issue and suggest reasons for these approaches.

Common Ground: Have students choose an agriculture-related issue, define it and write down the goal people on each "side" of it would like to achieve. Ask them to compare the goals and identify ways they are similar. Discuss how people on both "sides" of an issue often want the same thing—like clean, usable water—but have very different ways of reaching it. Have students develop a goal they believe both "sides" of their chosen issue could agree on, then list ways those involved could work together toward that goal.

Issues Forum: Have students choose an agriculture-related issue, then split into two (or more) teams to gather information about all "sides" of the issue. Help students learn to research information through libraries, community organizations, newspapers, resource people (interviews), materials in the agriculture program and computer networks, if available. Hold a "forum day" when students present their findings to the class and/ or other student groups.

The FFA Mission

FFA makes a positive difference in the lives of students by developing their potentialfor premier leadership, personal growth and career success through agricultural education

The Agricultural Education Mission

Agricultural Education prepares students for successful careers and a lifetime of informed choices in the global agriculture,food,fiber and natural resources systems

The National FFA Organization is a resource and support organization that does not select, control or supervise stateassociation,local chapter or individual member activities except as expressly provided for in the National FFA OrganizationConstitution and Bylaws.

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