

Pine Grove Area

SCHOOL DISTRICT

Science

Agricultural Education

September 18, 2008

I. PHILOSOPHY

The Agricultural Education course of the Pine Grove Area School District has been structured to introduce, systematically and thematically, the basic principles of agricultural sciences. Students will acquire a basic level of understanding in many areas of agri-science, agri-technology, and agricultural careers. This course will also allow the students to identify the components and opportunities that the FFA has to offer. These principles will be addressed using many applications and opportunities for hands-on learning. The course will allow for the accommodation of many learning styles, motivational levels, and academic abilities.

II. CORE CONCEPTS

1. National FFA Organization and Leadership: Explore and identify the opportunities available for them through the FFA Organization
2. Development of Record Keeping/ SAE: Demonstrate the ability to set up and maintain an SAE project in the PA State approved record keeping system
3. Agricultural History: Identify key historical factors that have helped direct the agriculture industry.
4. Agriculture Careers: Identify and describe agricultural careers.
5. Agriculture Today: Discuss the importance of agriculture in society and how the agriculture industry incorporates the use of technology.

III. COURSE OF STUDY

A. Course Name: Agriculture Education

B. Grade Level: 9-10

C. Length of Course: One Semester

1. Frequency: Daily

2. Duration: 43 minutes

D. Academic Level: Career Technology, Post-Secondary, College Prep

E. Credits: 0.5 Credits

F. Prerequisites: None

G. Course Description:

This course is designed to make students more aware of the latest concepts in agricultural science. Topics to be covered include The National FFA Organization, history of agriculture, agriculture today, and agricultural careers.

IV. CONTENT: Agriculture Education

CORE CONCEPT 1: National FFA Organization and Leadership

MAJOR OBJECTIVE: Explore and identify the opportunities available for them through the FFA Organization

CURRICULUM STANDARD:			
PA State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>Course Standard: Connect the interactive roles of the FFA, Agricultural Education and Supervised Agricultural Experience.</p> <p>Explore the history of the FFA organization.</p> <p>Identify the FFA degrees and list their requirements as they complete the FFA Greenhand Degree.</p> <p>Identify opportunities through the FFA.</p>	<p>Teacher will guide students to:</p> <p>Define the role of the FFA.</p> <p>Identify the extra- and intra-curricular activities and how they overlap with the classroom and S.A.E. activities.</p> <p>Examine FFA manuals and handbooks to answer questions.</p> <p>Outline the requirements of the FFA Degrees.</p> <p>Complete the application for the FFA Greenhand Degree.</p> <p>List and define the opportunities and programs the FFA offers like CDE's, chapter degree programs, proficiency awards and leadership conventions.</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

CONTENT: Agriculture Education

CORE CONCEPT 2: Development of Record Keeping/SAE

MAJOR OBJECTIVE: Demonstrate the ability to set up and maintain an SAE project in the PA State approved record keeping system

CURRICULUM STANDARD:			
State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>Course Standard: Examine the different record books used in PA. Identify key factors in effective record keeping.</p>	<p>Teacher will guide students to:</p> <ul style="list-style-type: none"> Identify the different record books as they are described. Describe the page intent of the SAE book. Describe the necessary information to be entered in the SAE book Select an SAE project. Compile and set-up a home record book. Keep accurate and appropriate records. 	<p>Teacher evaluation of:</p> <ul style="list-style-type: none"> Student performance Partner projects Individuals during small group work Individuals during whole group discussion Oral question and answer Independent activities Cooperative group projects Note-taking Class participation Tests and quizzes 	<ul style="list-style-type: none"> Textbook resources Computer programs/web sites Notebook Supplemental materials

CONTENT: Agriculture Education

CORE CONCEPT 3: Agriculture History

MAJOR OBJECTIVE: Identify key historical factors that have helped direct the agriculture industry.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.4.10.A Describe the importance of agriculture to society.</p> <p>Identify the major cash crops of Pennsylvania.</p> <p>Identify what percentage of the United States' population is involved in the food and fiber industry.</p> <p>Compare and contrast the influence of agriculture on a nation's culture, standard of living and foreign trade.</p> <p>Compare a contemporary economic issue in agriculture to its historical origin.</p>	<p>Teacher will guide students to:</p> <p>Identify cash crops in early American Agriculture.</p> <p>Examine the number of people involved in the agriculture industry throughout history.</p> <p>Discuss the changes that have occurred in the agriculture industry throughout history.</p> <p>Discuss the role of agriculture in American society throughout history.</p> <p>Compare and contrast the role agriculture has had on the American economy throughout history.</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

CONTENT: Agriculture Education

CORE CONCEPT 3: Agriculture History

MAJOR OBJECTIVE: Identify key historical factors that have helped direct the agriculture industry.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.4.10.B Assess the influence of agricultural science on farming practices.</p> <p>Compare the practices of no-till farming to traditional soil preparation (e.g., plow, disc).</p> <p>Analyze and explain the various practices of nutrient management on the farm.</p>	<p>Teacher will guide students to:</p> <p>Examine the difference in farming techniques throughout history</p> <p>Identify components of nutrient management plans</p> <p>Discuss how consumer needs direct the agriculture industry</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

CONTENT: Agriculture Education

CORE CONCEPT 3: Agriculture History

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CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.4.10.C Explain the functions of the components of the food and fiber system.</p> <p>Compare and analyze growing conditions in the United States to determine which plants and animals are most suitable to each region.</p> <p>Identify a commodity, its origin and its steps of production.</p> <p>Compare and analyze the cost of a commodity to its production cost.</p> <p>Identify and describe how food safety issues have impacted production in agriculture.</p>	<p>Teacher will guide students to:</p> <p>Identify key environmental factors that make the US ideal for agriculture.</p> <p>Examine the process of food production.</p> <p>Explain the break-down of the food dollar.</p> <p>Discuss how food safety and consumer concerns have influenced production agriculture.</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

CONTENT: Wildlife Management

CORE CONCEPT 4: Agriculture Careers

MAJOR OBJECTIVE: Identify and describe agricultural careers.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.4.10.A Describe the importance of agriculture to society.</p> <p>Compare and contrast the influence of agriculture on a nation's culture, standard of living and foreign trade.</p>	<p>Teacher will guide students to:</p> <p>Students will define eight agricultural career areas, including Production Agriculture, Agriculture Mechanics, Forestry, Horticulture, Natural Resource Management, Agriculture Professions, Processing-Distribution-Marketing, and Specialty Agriculture.</p> <p>Students will list several careers under each title.</p> <p>Students will research selected careers.</p> <p>Examine the role agriculture careers have in American culture.</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

CONTENT: Agriculture Education

CORE CONCEPT 5: Agriculture Today

MAJOR OBJECTIVE: Discuss the importance of agriculture in society and how the agriculture industry incorporates the use of technology.

CURRICULUM STANDARD:			
State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.4.10.D Analyze the efforts of increased efficiency in agriculture through technology.</p> <p>Compare various technological advancements and analyze each for its contribution toward labor and cost efficiency.</p>	<p>Teacher will guide students to:</p> <p>Examine various technological advances in agriculture.</p> <p>Discuss the importance of technological advances in agriculture.</p> <p>Identify benefits of various technological advances in agriculture.</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

CONTENT: Agriculture Education

CORE CONCEPT 5: Agriculture Today

MAJOR OBJECTIVE: Discuss the importance of agriculture in society and how the agriculture industry incorporates the use of technology.

CURRICULUM STANDARD:			
State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.6.10.A Apply biotechnologies that relate to propagating, growing, maintaining, adapting, treating and converting.</p> <p>Apply knowledge of plant and animal production processes in designing an improvement to existing processes.</p> <p>Describe specific examples that reflect the impact that agricultural science has had on biotechnology.</p>	<p>Teacher will guide students to:</p> <p>Describe biotechnologies used in the agriculture industry.</p> <p>Apply biotechnologies to real world problems/issues related to propagating, growing, maintaining, adapting, treating and converting.</p> <p>Discuss benefits of using different types of biotechnologies that are used in agriculture.</p>	<p>Teacher evaluation of:</p> <p>Student performance</p> <p>Partner projects</p> <p>Individuals during small group work</p> <p>Individuals during whole group discussion</p> <p>Oral question and answer</p> <p>Independent activities</p> <p>Cooperative group projects</p> <p>Note-taking</p> <p>Class participation</p> <p>Tests and quizzes</p>	<p>Textbook resources</p> <p>Computer programs/web sites</p> <p>Notebook</p> <p>Supplemental materials</p>

V. EXPECTED LEVELS OF ACHIEVEMENT

- A. Students are expected to reach the proficient level of achievement, including all of the skills noted in the specific content area of this curriculum.
- B. Grading system for Agricultural Education is as follows:

Grading Scale	
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

- C. Each student's grade will be determined at the conclusion of each marking period by dividing the total number of points earned by the total number of points possible. Progress notes will be issued half-way throughout each marking period for students who are performing below 70%.