Foods Unwrapped

-Curriculum Guide-

Pequea Valley Agricultural Education

Course Description: People choose foods and beverages based on many factors. Included in many food choice decisions are appearance, taste, health benefits, budgetary concerns, food safety, cultural and religious values. Today's food industry takes many of these factors into account as they process foods for the consumer. This course will investigate the contribution of food ingredients in the final outcome of a food product. This course will focus on experimentation with food ingredients in the preparation and consumption of food.

FFA Membership: You are an FFA member when you are enrolled in an agriculture class taught by Mr. Masser and/or Mrs. VanSant! You are welcome to attend FFA meetings when they are held on Wednesdays. Keep your ears open for opportunities that may interest you such as…

Career Development Events - See **ffa.org** for a complete listing of events!
- Food Science and Technology
- Milk Quality and Products
- Meats Evaluation

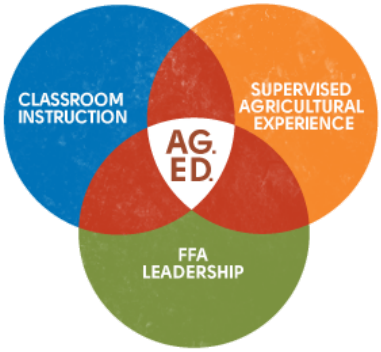
Agriscience Research
Leadership Event (Conferences, Public Speaking, Parliamentary Procedure)

Events occur throughout the year. Much of the preparation for these events occurs outside regular class time, but your hard work could get you a trip to the Penn State campus in June, National FFA Convention in Indianapolis, IN, or BOTH! See Mr. Masser or Mrs. VanSant for details.

Supervised Agricultural Experience (SAE): Looking to earn an additional elective credit for completing a project that interests you? The Agricultural Education department offers elective credit to students who successfully complete an SAE project.

An SAE is ANY project that is student-driven, agriculturally-related, and supervised by an agriculture teacher. These projects could include:

Agriscience Fair Project
Work Experiences
Caring for Animals or Plants
Improvement Projects
Career Exploration Projects



Have a cool idea for an SAE?

Ask your teacher how you can get started. We have connections to local businesses that will hire you, provide you greenhouse space, space to house animals and more!

Course Outline

Week	Unit	Topic Areas
Week 1	Unit 1: Introduction to Food Science	Topic 1: Foods science vs Food Technology
Week 2		Topic 2: Laboratory skills
Week 3	Unit 2: Food Chemistry	Topic 1: Water
Week 4		Topic 2: Chemical Compounds in Food
		Topic 3: Food pH
Week 5	Unit 3: Carbohydrates	Topic 1: Simple Carbohydrates
Week 6		Topic 2: Complex Carbohydrates
		Topic 3: Carbohydrate Substitutes
Week 7	Unit 4: Lipids	Topic 1: Types of Lipids
Week 8		Topic 2: Functional Properties of Lipids
Week 9	Unit 5: Proteins	Topic 1: Functional Properties of Proteins
Week 10		Topic 2: Enzymes
End of MP 1 - Mid-Term Exam OR Agriscience Project		
Week 11	Unit 6: Food Microbiology	Topic 1: Labs Skills in Microbiology
Week 12		Topic 2: Applications of Beneficial Microbiology
Week 13		Topic 3: Foodborne Illness
Week 14		
Week 15	Unit 7: Food Science Research and Development	Topic 1: Product Development
Week 16		Topic 2: Sensory Evaluation
Week 17		Topic 3: Research Techniques in Food Science
Week 18		
Week 19	Unit 8: Food Safety	Topic 1: HACCP
Week 20		Topic 2: ServSafe Certification Requirements
End of MP 2 - FInal Exam OR Agriscience Project		