

# Career & Technical Education (CTE) Standards Revision Project

## Cluster: Agriculture & Natural Resources

**Pathways: Animal Science, Agribusiness Systems, Environmental Service Systems, Food Products & Processing Systems, Natural Resources, Plant Science, Power, Structural & Technology Systems**

The standards for this cluster were created under the direction of Dr. Kellie Enns with countless hours provided by the agriculture education instructors of Colorado. The finished product is the result of a compilation of existing Colorado secondary ag education standards, National AFNR standards created by the National Council on Agriculture Education and introductory course standards from Colorado community colleges. The attached standards for each of the pathways identify links to Colorado core content standards which have been validated by content specialists in each of the core content areas. Future work with this project will include linkage of the new standards to current Colorado curriculum in agriculture education, identification or development of curriculum in new areas and the creation of a course development website to facilitate effective utilization of the information by Colorado Agriculture Education instructors.

Michael Womochil, Program Director, Agriculture, Natural Resources & Energy

Project Coordinator    Dr. Kellie Enns  
Assistant Professor  
Agriculture Education  
Colorado State University

### **Agriculture & Natural Resources Content Team**

<b>Jeff Klein</b>	Welding Instructor	Aims CC
<b>Elizabeth Bauer</b>	Vet Tech Instructor	Front Range CC
	Lab Animal Technician	
<b>Martie Attman</b>	Instructor	Front Range CC
<b>Don Bachelor</b>	Horticulture Instructor	Front Range CC
<b>Ray Daugherty</b>	Horticulture Instructor	Front Range CC
<b>Beth Marsh</b>	Ag Instructor	Arickaree
<b>Amanda Ramos</b>	Ag Instructor	Cortez HS

<b>Angie Daly</b>	Ag Instructor	Hi Plains HS
<b>Logan Junghanns</b>	Ag Instructor	Fleming HS
<b>Danica McComb</b>	Ag Instructor	Ft Morgan HS
<b>Jerrold Basire</b>	Ag Instructor	Briggsdale HS
<b>John Stahley</b>	Ag Instructor	Platte Valley HS
<b>Jeff Plumb</b>	Ag Instructor	Hauxton HS
<b>Jerry Barden</b>	Ag Instructor	Brighton HS
<b>Phil Love</b>	Ag Instructor	Hidden Lake HS
<b>Cody Weber</b>	Ag Instructor	Limon HS
<b>Mike Forster</b>	Ag Instructor	Peetz HS
<b>Brenton Ormiston</b>	Ag Instructor	Rocky Ford HS
<b>Jay Clapper</b>	Ag Instructor	Wray HS
<b>Lori Haack</b>	Ag Instructor	West Grand HS
<b>Logan Lacy</b>	Ag Instructor	Eaton HS
<b>Charity Stocking</b>	Ag Instructor	Lamar HS
<b>Ruth Shepardson</b>	Ag Instructor	Plateau Valley HS
<b>Justin Tedford</b>	Ag Instructor	Sangre De Christo HS
<b>Jenny Axelson</b>	Ag Instructor	Highland HS
<b>Desirae Weber</b>	Ag Instructor	Platte Valley HS
<b>Kaity Gaines</b>	Ag Instructor	Career Development Center St Vrain Valley
<b>Lauren Hart</b>	Ag Instructor	Career Development Center St Vrain Valley
<b>Melinda Fury</b>	Ag Instructor	Windsor HS
<b>Richard Gekeler</b>	Ag Instructor	Kit Carson HS
<b>Leon Hanhardt</b>	Ag Instructor	Lone Star HS
<b>Brian Cunningham</b>	Ag Instructor	Yuma HS
<b>Tad McMillan</b>	Ag Instructor	Weld Central HS
<b>Marvin Knoeber</b>	Ag Instructor	Valley HS
<b>Troy Mayfield</b>	Ag Instructor	Holyoke HS
<b>Carl Beaman</b>	Ag Instructor	Pueblo County HS
<b>John Haddan</b>	Ag Instructor	Moffat County HS
<b>Kenton Ochsner</b>	Asst Program Director	CCCS

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>
<b>Prepared Completer Competencies:</b> FPP 01.Understanding the Food Products and Processing Industry	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 01.01 Determine the meaning and importance of food science	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 01.01.a</b> Define food science</p> <p><b>FPP 01.01.b</b> Explain the importance of food science</p> <p><b>FPP 01.01.c</b> Integrate concepts of Food Science into other pathways/ agriculture</p> <p><b>FPP 01.01.d</b> Apply food science in a career pathway</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 01.02 Understand the history and global significance of food systems	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 01.02.a</b> Define major components of food systems</p> <p><b>FPP 01.02.a</b> Identify &amp; explain the major trends and relationships of food systems to global agriculture production</p> <p>(RWC04.03.a; RWC04.03.c; RWC04.03.d;</p> <p><b>FPP 01.02.a</b> Identify various cultural perspectives in agriculture and the impact on food systems</p> <p><b>FPP 01.02.a</b> Understand current cultural perspectives, global trade, and environmental impact of agriculture and the impact on food systems</p> <p>(MAT 3.3a MAT 3.3c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p> <p>MAT3.3.c- Recognize association between two categorical variables.</p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p>

	RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 01.02 Understand the history and future response in food systems to agriculture	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 01.02.a</b> Determine important historical trends in food systems</p> <p><b>FPP 01.02.b</b> Describe evolution and technological advances in food systems</p> <p><b>FPP 01.02.c</b> Analyze trends (population, societal, income, health, environmental) and their impact on food systems</p> <p>(MAT 1.4.a; MAT 2.1.a; MAT3.3a; RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 01.02.d</b> Predict future trends in food systems</p> <p>(MAT 2.1.a; MAT 2.2D; MAT3.3a; RWC04.10.a; RWC04.10.b; RWC04.10c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p> <p>MAT2.1.a-Mathematics, Patterns, Functions, and Algebraic Structures, Representation of continuous relations and elementary functions (linear, quadratic, absolute value, power, and exponential functions and their inverses) and of discrete relations and elementary functions (arithmetic and geometric sequences) using tables, graphs, symbols, text, and geometric models. - Represent linear, quadratic, absolute value, power, and exponential functions and their inverses in a table, graph, equation, text, and geometric model and convert from one representation to another.</p> <p>MAT2.2.d-Mathematics, Patterns, Functions, and Algebraic Structures, Analysis of elementary functions and their inverses, by investigating rates of change, intercepts, asymptotes, domain, range, and local and global behavior using all available tools, including technology. - Make qualitative statements about the rate of change of a function, based on its graph or table or values.</p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and</p>

	<p>numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 01.03 Food Products and Processing Segments	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 01.03.a</b> Define producers, packer/processors, distributors, consumer</p> <p><b>FPP 01.03</b> Describe the interrelationship of processing segments</p> <p><b>FPP 01.03</b> Evaluate the impact of a change in markets on the food science industry</p> <p>(MAT 1.4a; MAT 2.1.a; <b>MAT3.2D</b>; MAT 3.3a; RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p> <p>MAT2.1.a-Mathematics, Patterns, Functions, and Algebraic Structures, Representation of continuous relations and elementary functions (linear, quadratic, absolute value, power, and exponential functions and their inverses) and of discrete relations and elementary functions (arithmetic and geometric sequences) using tables, graphs, symbols, text, and geometric models. - Represent linear, quadratic, absolute value, power, and exponential functions and their inverses in a table, graph, equation, text, and geometric model and convert from one representation to another.</p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p>

	<p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>FPP 01.04 Distribution Channels</b>	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 01.04.a</b> Define Wholesalers, Local Markets/Direct Markets (CSA), Retailers, Governments/Institutional (School Lunch and Prison Lunch), Restaurant (Catering)/Hotel, Fast Food</p> <p><b>FPP 01.04.a</b> Describe the movement of products through channels</p> <p><b>FPP 01.04.a</b> Illustrate the impact of the distribution channels</p> <p><b>FPP 01.04.a</b> Design a new distribution channel (vertical integration)</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 01.05 Careers (including Food Service)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 01.05.a</b> Identify careers and explore advantages and disadvantages within pathway Choose a career based upon skills and education necessary</p> <p><b>FPP 01.05.a</b> Develop an ICAP specific to Food Systems  (RWC04.03.a; RWC04.03.c; RWC04.03.d)</p> <p><b>FPP 01.05.a</b> Review, and modify and implement Food Systems Pathway ICAP (Individual Career and Academic Plan)  ( RWC04.08.a;)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC04.08.a-Reading, Writing, and Communicating, Research and Reasoning, Informational materials, including electronic sources, need to be collected, evaluated, and analyzed for accuracy, relevance, and effectiveness for answering research questions - Integrate information from different sources to research and complete a project</p>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
--	--

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>
<b>Prepared Completer Competencies:</b> <b>FPP 02. Understanding World Food Needs</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>FPP 02.01</b> The student will understand the role of agriculture in determining the need and supply of the worlds' food	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 02.01.a</b> Define the difference in food supply and food need</p> <p><b>FPP 02.01.b</b> Analyze global trends (population, societal, income, health, environmental) and the impact on food supply and food need</p> <p>(MAT 2.1.a; RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT2.1.a-Mathematics, Patterns, Functions, and Algebraic Structures, Representation of continuous relations and elementary functions (linear, quadratic, absolute value, power, and exponential functions and their inverses) and of discrete relations and elementary functions (arithmetic and geometric sequences) using tables, graphs, symbols, text, and geometric models. - Represent linear, quadratic, absolute value, power, and exponential functions and their inverses in a table, graph, equation, text, and geometric model and convert from one representation to another.</p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and</p>

**FPP 02.01.c** Relate trends of food supply and food need to theories of Thomas Malthus and Norman Borlaug (MAT 3.3a MAT 3.3c; RWC01.07.b; RWC01.07.c; RWC01.07.d; RWC01.07.e)

numerical summary statistics.

MAT3.3.c- Recognize association between two categorical variables.

RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - *Use verbal and nonverbal techniques to communicate information*

RWC01.07.c - Oral Expression and Listening - Oral presentations require effective preparation strategies - *Define a position and select evidence to support that position*

RWC01.07.d - Oral Expression and Listening - Oral presentations require effective preparation strategies - *Develop a well-organized presentation to defend a position*

RWC01.07.e - Oral Expression and Listening - Oral presentations require effective preparation strategies - *Use effective audience and oral delivery skills to persuade an audience*

RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - *Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking*

RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - *Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision*

RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - *Implement a purposeful and articulated process to solve a problem*

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 02.02 Understanding Nutrition and Food Pyramid	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 02.02.a</b> Identify food groups and importance of nutrition</p> <p><b>FPP 02.02.b</b> Determine impact of food groups on nutrition</p> <p><b>FPP 02.02.c</b> Describe a balanced nutritional plan</p> <p><b>FPP 02.02.d</b> Make recommendations to improve a diet or dietary deficiency</p> <p>(MAT 1.4a; MAT 3.3a; MAT 3.3b; MAT3.3c; RWC03.05.a; RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p> <p>MAT3.3.b-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Define and explain how sampling distributions (developed through simulation) are used to describe the sample-to-sample variability of sample statistics.</p> <p>MAT3.3.c-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Recognize association between two</p>

	<p>categorical variables.</p> <p>RWC03.05.a - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Articulate a position through a concise and focused claim or thesis statement, and advance it using evidence, examples, and counterarguments</i></p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 02.03. Implications of diet and health	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 02.03.a</b> Identify nutritional diseases/deficiencies</p> <p><b>FPP 02.03.b</b> Determine causes of diseases/deficiencies</p> <p><b>FPP 02.03.c</b> Explore societal impacts of diet and health</p> <p><b>FPP 02.03.d</b> Problem solve a nutritional issue in society</p> <p>(MAT 3.1a MAT 3.1b MAT 3.1c; RWC04.02.a; RWC04.02.e; RWC04.03.f; RWC04.10.c; RWC04.10.a; RWC04.10.b; RWC04.03.a; RWC04.03.c; RWC04.03.d)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.1.a-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Formulate appropriate research questions that can answered with statistical analysis.</p> <p>MAT3.1.b- Determine appropriate data collection methods to answer a research question.</p> <p>MAT3.1.c- Explain how data will be analyzed to provide answers to a research question.</p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and</i></p>

	<p><i>narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC04.03.f - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Document sources of quotations, paraphrases, and other information, using a style sheet, such as that of the Modern Language Association (MLA) or the American Psychological Association (APA)</i></p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
--	---

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 02.04 Understanding Cultural Practices and the food supply	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 02.04.a</b> Define and Describe Organic, Natural, Conventional, GMOs,</p> <p><b>FPP 02.04.b</b> Analyze cultural practices and its impact on quantity and quality of food production</p> <p>(MAT 3.1a MAT3.1c MAT 3.2a; RWC04.03.a; RWC04.03.c; RWC04.03.d; RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 02.04.c</b> Educate others on cultural practices related to food science/food supply</p> <p>(RWC01.07.b; RWC01.07.c; RWC01.07.d; RWC01.07.e)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.1.a-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Formulate appropriate research questions that can answered with statistical analysis.</p> <p>MAT3.1.c- Explain how data will be analyzed to provide answers to a research question.</p> <p>MAT3.2.a-Mathematics, Data Analysis, Statistics, and Probability, Evaluation of the quality of observational studies, surveys, and experimental studies. - Identify the characteristics of a well designed and well-conducted survey.</p> <p>RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Use verbal and nonverbal techniques to communicate information</i></p> <p>RWC01.07.c - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Define a position and select evidence to support that position</i></p> <p>RWC01.07.d - Oral Expression and Listening - Oral presentations require</p>

	<p>effective preparation strategies - <i>Develop a well-organized presentation to defend a position</i></p> <p>RWC01.07.e - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Use effective audience and oral delivery skills to persuade an audience</i></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies</p>
--	--

	require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 02.05 Economic Development	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 02.05.a</b> Describe food supply and its impact on economic development</p> <p><b>FPP 02.05.b</b> Analyze food supply in developed and underdeveloped countries</p> <p>MAT 3.1a; MAT3.1c; MAT 3.2a; RWC04.02.a; RWC04.02.e ;</p> <p><b>FPP 02.05.c</b> Determine impact of food supply on infrastructure systems</p> <p>MAT 1.4a; RWC04.03.a; RWC04.03.c; RWC04.03.d;</p> <p><b>FPP 02.05.d</b> Create alternatives for increased economic development relating to food supply</p> <p>(RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p> <p>MAT3.1.a-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Formulate appropriate research questions that can answered with statistical analysis.</p> <p>MAT3.2.a- Identify the characteristics of a well designed and well-conducted survey.</p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides</p>

	<p>insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
--	---

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
--	--

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 02.06 Sustainability	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 02.06.a</b> Define sustainable food supply and identify sustainable food production practices (SCI 3.5b)</p> <p><b>FPP 02.06.a</b> Analyze current practices to improve sustainability in food supply</p> <p>(MAT 3.1a MAT3.1b; MAT 3.1c; MAT 3.2a; RWC04.02.a; RWC04.02.e; RWC04.10.c; SCI 3.5b)</p> <p><b>FPP 02.06.a</b> Compare sustainability of food supplies in developed to developing countries</p> <p>(MAT3.3a; MAT3.3c; RWC04.03.a; RWC04.03.c; RWC04.03.d; SCI 3.5b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.1.a-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Formulate appropriate research questions that can answered with statistical analysis.</p> <p>MAT3.1.b-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Determine appropriate data collection methods to answer a research question.</p> <p>MAT3.1.c-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Explain how data will be analyzed to provide answers to a research question.</p> <p>MAT3.2.a-Mathematics, Data Analysis, Statistics, and Probability, Evaluation of the quality of observational studies, surveys, and experimental studies. - Identify the characteristics of a well designed and well-conducted survey.</p>

<p><b>FPP 02.06.a</b> Recommend improvements to increase sustainability in current supply chain (based on trends and industry practices)</p> <p>(RWC04.10.a; RWC04.10.b; RWC04.10.c; SCI 3.5b)</p>	<p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p> <p>MAT3.3.c- Recognize association between two categorical variables.</p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to</i></p>
--	--

	<p><i>collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p> <p>SCI3.5.b-Science, Earth Science, There are costs, benefits, and consequences of exploration, development, and consumption of renewable and nonrenewable resources - Evaluate positive and negative impacts on the geosphere, atmosphere, hydrosphere, and biosphere in regards to resource use.</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>
<b>Prepared Completer Competencies:</b> FPP 03 Implementing Food Safety and Sanitation	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.01 Principles of Food safety and sanitation	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.01.a</b> Identify the importance and recognize principles of food safety and sanitation</p> <p><b>FPP 03.01.b</b> Demonstrate principles of safety and sanitation</p> <p><b>FPP 03.01.c</b> Develop standard operating procedures for safety and sanitation for a given setting</p> <p>(RWC04.03.a; RWC04.03.c; RWC04.03.d)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p>

<p><b>FPP 03.01.d</b> Evaluate a case study on safety and sanitation</p> <p>(RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.02 Regulating agencies and responsibilities	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.02.a</b> Identify agencies (USDA, FSIS, CDC, APHIS, EPA, FDA, OSHA, local Health Department) and responsibilities</p> <p><b>FPP 03.02.b</b> Determine agency interdependency and impact on consumer</p> <p><b>FPP 03.02.c</b> Apply agency regulation to a given scenario</p> <p><b>FPP 03.02.d</b> Analyze industry and determine areas that need future regulations and agencies to govern</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.03 Equipment and Maintenance	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.03.a</b> Identify tools used in the food trade and their safe use</p> <p><b>FPP 03.03.b</b> Demonstrate proper use of food industry equipment</p> <p><b>FPP 03.03.c</b> Maintain tools and equipment for safety and sanitation</p> <p><b>FPP 03.03.d</b> Correlate technology and its impact on food processing efficiency</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.04 Safe Food Handling	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.04.a</b> Identify concepts of safe food handling (Food temperatures, Cross contamination, Ready to Eat, Handler, Storage)</p> <p><b>FPP 03.04.b</b> Implement safe food handling techniques</p> <p><b>FPP 03.04.c</b> Analyze a scenario for safe food handling (observe food prep at home, food network)  (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 03.04.d</b> Design a safe food handling protocol for a given situation (food buffet, quick serve rest)  (RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking</i></p> <p>RWC04.10.b - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Assess strengths and weaknesses of their thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
--	--

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.05 HACCP (See Also standards on Microbial Food Borne Illness)	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.05.a</b> Define the seven principles of HACCP</p> <p><b>FPP 03.05.b</b> Explain the implementation of the seven principles</p> <p><b>FPP 03.05.c</b> Implement the seven principles in food processing facility</p> <p><b>FPP 03.05.d</b> Develop SSOP (Standard sanitation operating procedures) and GMP (good manufacturing principles for a given facility )</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.06 Food Borne Illnesses (Pathogens)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.06.a</b> Identify, explain causes, and symptoms of Food Borne Illnesses (Hepatitis A, Botulism, Listerisis, E Coli, Salmonella)</p> <p><b>FPP 03.06.b</b> Evaluate the difference of intoxication vs. infection of a food borne illness</p> <p><b>FPP 03.06.c</b> Correlate proper handling techniques to prevent food borne illness</p> <p><b>FPP 03.06.d</b> Analyze the difference between food borne illness and contamination</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.07 Bioterrorism	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.07.a</b> Define bioterrorism and identify possible routes of bioterrorism in the food supply</p> <p><b>FPP 03.07.b</b> Correlate agency responsibilities to bioterrorism</p> <p><b>FPP 03.07.c</b> Analyze the security of the food supply (incoming and storage)</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 03.07.d</b> Create a plan to protect food supply from bioterrorism</p> <p>(RWC04.03.a; RWC04.03.c; RWC04.03.d)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to</i></p>

	<p><i>collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>
<b>Prepared Completer Competencies: FPP 03.08 Implementing Food Lab Techniques</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include: FPP 03.08 Measurement</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p>FPP 03.08.a Determine measurement units (liquid volume, dry volume, weight, bakers percentage, counts) and understand measurement abbreviations</p> <p>FPP 03.08.a Identify tools and techniques for measuring</p> <p>FPP 03.08.a Utilize different equipment to measure</p> <p>(MAT 1.4a)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p> <p>MAT4.1.d-Mathematics, Shape, Dimension, and Geometric Relationships, Determination and utilization of the area of irregular shapes, and surface area and volume of cones and pyramids, cylinders and prisms, and spheres. - Apply the effect of dimensional change of length, area, and volume and utilize appropriate units and scales for problem solving situations involving perimeter, area, and volume.</p>

<p>FPP 03.08.a Equalize measurements using different scales</p> <p>(MAT 1.4a; MAT 4.1d)</p>	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>
---	---

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.09 Preparation	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.09.a</b> Identify methods of food preparation (grinding, chopping)</p> <p><b>FPP 03.09.a</b> Describe tools for food preparation and safe use</p> <p><b>FPP 03.09.a</b> Demonstrate safe use of preparation tools</p> <p><b>FPP 03.09.a</b> Utilize tools in advanced methods of preparation (garnish)</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.10 Cooking Methods	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.10.a</b> Describe methods of cooking</p> <p><b>FPP 03.10.a</b> Explore cooking methods as related to food types</p> <p><b>FPP 03.10.a</b> Understand cooking chemistry (Maillard Reaction) (what happens to food when it is cooked)</p> <p><b>FPP 03.10.a</b> Relate the Maillard Reaction to food sensory properties</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.11 Conduct Lab Experiment	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.11.a</b> Define the scientific method</p> <p><b>FPP 03.11.b</b> Apply scientific method to a food lab Mat 3.1a</p> <p><b>FPP 03.11.c</b> Utilize data to develop conclusions (MAT3.1b; MAT 3.1c; MAT 3.3a;)</p> <p><b>FPP 03.11.d</b> Evaluate result and make recommendations (MAT 3.3c )</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.1.b-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Determine appropriate data collection methods to answer a research question.</p> <p>MAT3.1.c- Explain how data will be analyzed to provide answers to a research question.</p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p> <p>MAT3.3.c-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Recognize association between two categorical variables.</p>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
--	--

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.11 Product Evaluation (Sensory, Consumer)	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.11.a</b> Identify the types of product evaluation (consumer sensory, color, aroma, taste, palatability)</p> <p><b>FPP 03.11.a</b> Describe sensory properties (i.e. Sour, sweet, bitter in taste)</p> <p><b>FPP 03.11.a</b> Conduct experiment and evaluate results</p> <p>(MAT 3.1a; MAT 3.1b; MAT 3.1c)</p> <p><b>FPP 03.11.a</b> Compare and contrast food and their value to product taste/consumer preference</p> <p>(MAT3.3a; MAT3.3c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.1.a-Mathematics, Data Analysis, Statistics, and Probability, Design of censuses, surveys, observational and experimental studies to answer statistical questions and understand the types of inferences can legitimately be drawn from each. - Formulate appropriate research questions that can answered with statistical analysis.</p> <p>MAT3.1.b- Determine appropriate data collection methods to answer a research question.</p> <p>MAT3.1.c- Explain how data will be analyzed to provide answers to a research question.</p> <p>MAT3.3.a-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics.</p>

	<p>MAT3.3.c-Mathematics, Data Analysis, Statistics, and Probability, Selection of appropriate methods to collect, organize and analyze data (numerical and categorical, univariate and bivariate) using tables, graphical displays, and numerical summary statistics. - Recognize association between two categorical variables.</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 03.12 Recipe and Formulation	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 03.12.a</b> Identify parts of a recipe or meat formulation</p> <p><b>FPP 03.12.b</b> Determine ingredient interactions</p> <p><b>FPP 03.12.c</b> Apply formulation principles in a recipe  (MAT 1.4a)</p> <p><b>FPP 03.12.d</b> Convert recipe/formulation for large quantities  (MAT 1.4a )</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>	
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>	
<b>Prepared Completer Competencies:</b> FPP 04 Understanding the science of food		
<b>High School Expectations</b>		
<b>Concepts and skills students know include:</b> FPP 04.01 Understand Nutrients		
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>	
<p><b>FPP 04.01.a</b> Identify nutrients and their common food sources, and role in human nutrition</p> <p><b>FPP 04.01.b</b> Explain the stability of nutrients under various conditions</p> <p><b>FPP 04.01.c</b> Identify factors that affect bioavailability of nutrients</p> <p><b>FPP 04.01.d</b> Explain nutritional disorder caused by improper diet</p>	<b>Academic Content Knowledge Alignment:</b>	
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>	

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.02 Science of Taste and Palatability	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.02.a</b> Describe sensory methods humans use to determine food flavor</p> <p><b>FPP 04.02.a</b> Evaluate factors that impact food taste and palatability</p> <p><b>FPP 04.02.a</b> Describe methods used to evaluate taste and palatability</p> <p><b>FPP 04.02.a</b> Analyze methods to maintain quality in food taste and palatability (i.e. Storage, packaging, handling, etc)</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include: Understanding Food Chemistry</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.03.a</b> Describe food chemistry and how it relates to chemical elements (periodic table)  (SCI 1.2b; SCI 1.2c)</p> <p><b>FPP 04.03.a</b> Describe chemical reactions that occur in the processing and preparation of foods  (SCI 1.3b)</p> <p><b>FPP 04.03.a</b> Determine the chemical contribution to the food diet (i.e. Calories, energy)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.2.c-Science, Physical Science, - Use characteristic physical and chemical properties to develop predictions and supporting claims about elements' positions on the periodic table</p> <p>SCI1.3.b-Science, Physical Science, Matter can change form through chemical or nuclear reactions abiding by the laws of conservation of mass and energy. - Predict reactants and products for different types of chemical and nuclear reactions</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.04 Chemistry - Water	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.04.a</b> Describe chemical make-up of nutrient  (SCI 1.2b SCI 1.4b)</p> <p><b>FPP 04.04.d</b> Describe function of nutrient in food</p> <p><b>FPP 04.04.c</b> Analyze the interaction of the compound within the food product</p> <p><b>FPP 04.04.b</b> Analyze how nutrient interacts with other nutrients in the system  (RWC04.02.a; RWC04.02.e; RWC04.10.c; SCI1.2b;)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
--	--

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.05 Chemistry - Lipids	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.05.a</b> Describe chemical make up of nutrient (SCI 1.2b)</p> <p><b>FPP 04.05.a</b> Describe function of nutrient in food</p> <p><b>FPP 04.05.a</b> Analyze the interaction of the compound within the food product</p> <p><b>FPP 04.05.a</b> Analyze how nutrient interacts with other nutrients in the system (SCI1.2b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.06 Chemistry - Proteins	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.06.a</b> Describe chemical make up of nutrient (SCI 1.2b)</p> <p><b>FPP 04.06.b</b> Describe function of nutrient in food</p> <p><b>FPP 04.06.c</b> Analyze the interaction of the compound within the food product</p> <p><b>FPP 04.06.d</b> Analyze how nutrient interacts with other nutrients in the system (SCI1.2b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.07 Chemistry - Carbohydrates	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.07.a</b> Describe chemical make up of nutrient (SCI 1.2b)</p> <p><b>FPP 04.07.a</b> Describe function of nutrient in food Analyze the interaction of the compound within the food product</p> <p><b>FPP 04.07.a</b> Analyze how nutrient interacts with other nutrients in the system (SCI1.2b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.08 Chemistry - Other Food Components (Vitamins, Minerals, Food Additives)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.08.a</b> Describe chemical make up of nutrient (SCI 1.2b)</p> <p><b>FPP 04.08.b</b> Describe function of nutrient in food</p> <p><b>FPP 04.08.c</b> Analyze the interaction of the compound within the food product</p> <p><b>FPP 04.08.d</b> Analyze how nutrient interacts with other nutrients in the system (SCI1.2b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.09 Understanding Food Physics	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.09.a</b> Define food physics (SCI 1.4b)</p> <p><b>FPP 04.09.a</b> Describe the physics of water, proteins, lipids, and carbohydrates in foods (SCI 1.4b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.10 Physics - Water (Foam)	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.10.a</b> Identify the physical characteristics of nutrient (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.10.b</b> Relate physical characteristics of nutrient to how food is processed or utilized (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.10.c</b> Analyze the interaction of the compound within the food product (SCI 1.2,b SCI 1.4b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.11 Physics - Lipids (Emulsions)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.11.a</b> Identify the physical characteristics of nutrient (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.11.b</b> Relate physical characteristics of nutrient to how food is processed or utilized (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.11.c</b> Analyze the interaction of the compound within the food product (SCI 1.2,b SCI 1.4b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.12 Physics - Proteins	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.12.a</b> Identify the physical characteristics of nutrient (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.12.b</b> Relate physical characteristics of nutrient to how food is processed or utilized (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.12.c</b> Analyze the interaction of the compound within the food product (SCI 1.2,b SCI 1.4b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.13 Physics - Carbohydrates (Gels)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.13.a</b> Identify the physical characteristics of nutrient (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.13.b</b> Relate physical characteristics of nutrient to how food is processed or utilized (SCI 1.2,b SCI 1.4b )</p> <p><b>FPP 04.13.c</b> Analyze the interaction of the compound within the food product (SCI 1.2,b SCI 1.4b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 04.14 Physics - Food Additives	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 04.14.a</b> Identify the physical characteristics of nutrient (SCI 1.2,b SCI 1.4b)</p> <p><b>FPP 04.14.b</b> Relate physical characteristics of nutrient to how food is processed or utilized (SCI 1.2,b SCI 1.4b )</p> <p><b>FPP 04.14.c</b> Analyze the interaction of the compound within the food product (SCI 1.2,b SCI 1.4b )</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>	
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>	
<b>Prepared Completer Competencies:</b> FPP 05. Understanding food quality and deterioration		
<b>High School Expectations</b>		
<b>Concepts and skills students know include:</b> FPP 05.01 Understanding Food Microbiology		
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>	
<p><b>FPP 05.01.a</b> Explain microbiology and its application to food</p> <p><b>FPP 05.01.b</b> Describe different types of food microbes</p> <p><b>FPP 05.01.c</b> Describe growth and interaction in food</p>	<b>Academic Content Knowledge Alignment:</b>	
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>	

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 05.02 Understanding Food Deterioration	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 05.02.a</b> Describe the three categories (chemical, physical and biological) and the ten causes (microorganisms, oxygen, enzymes, infestation, etc) of food deterioration  ( SCI 1.2b)</p> <p><b>FPP 05.02.a</b> Describe preservation techniques to prevent food deterioration (heat, cold, acid, etc)  (SCI 1.2b)</p> <p><b>FPP 05.02.a</b> Describe normal food changes in food products throughout the harvest/ slaughter process  (SCI 1.2b)</p> <p><b>FPP 05.02.a</b> Explain the source, importance, and action of food enzymes  (SCI 1.2b; SCI 1.2c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p> <p>SCI1.2.c-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. - Use characteristic physical and chemical properties to develop predictions and supporting claims about elements' positions on the periodic table</p> <p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 05.03 Preventing Spoilage in Foods	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 05.03.a</b> Describe causes of food spoilage (SCI 1.2b)</p> <p><b>FPP 05.03.b</b> Describe methods of preventing food spoilage (SCI 1.2b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 05.04 Preventing Microbial Food Borne Illnesses	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 05.04.a</b> Explain the four major areas to control to prevent contamination (air movement, physical contamination, temperature, and moisture)</p> <p><b>FPP 05.04.b</b> Describe microbial growth, death, and growth inhibition</p> <p><b>FPP 05.04.c</b> Identify symptoms, complications, and treatment for food born illnesses</p> <p><b>FPP 05.04.d</b> Develop a management plan incorporating food preparation, preservation and sanitation methods to prevent microbial food born illnesses</p> <p>(RWC04.03.a; RWC04.03.c; RWC04.03.d; RWC03.05.a; RWC03.05.b; RWC03.02.g; RWC04.06.a; RWC04.06.c; RWC04.06.d; RWC04.07.a; RWC04.07.b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.03.a - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Define and narrow a topic for research (thesis statement, hypothesis, research question) to address a specific purpose and audience</i></p> <p>RWC04.03.c - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources</i></p> <p>RWC04.03.d - Research and Reasoning - Self-designed research provides insightful information, conclusions, and possible solutions - <i>Use a variety of strategies (e.g technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others</i></p> <p>RWC03.05.a - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Articulate a position through a concise and focused claim or thesis statement, and advance it using evidence, examples, and counterarguments</i></p> <p>RWC03.05.b - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Locate and select appropriate information that clearly supports a definite purpose, topic,</i></p>

	<p><i>or position</i></p> <p>RWC03.02.g - Writing and Composition - Ideas, evidence, structure, and style create persuasive, academic, and technical texts for particular audiences and specific purposes - <i>Draw a conclusion by synthesizing information</i></p> <p>RWC04.06.a - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Define and narrow a topic for research, developing the central idea, focus, or question at issue</i></p> <p>RWC04.06.c - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness</i></p> <p>RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information</i></p> <p>RWC04.07.a - Research and Reasoning - An author’s reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Analyze the logic (including assumptions and beliefs) and use of evidence (existing and missing information, primary sources, and secondary sources) used by two or more authors presenting similar or opposing arguments (such as articles by two political co</i></p> <p>RWC04.07.b - Research and Reasoning - An author’s reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Evaluate the accuracy of the information in a text, citing text-based evidence, author’s use of expert authority, and author’s credibility to defend the</i></p>
--	---

	<i>evaluation</i>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>
<b>Prepared Completer Competencies:</b> FPP 06. Understanding Food Production	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.01.a Market Segments (See also Food Quality Standards)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<b>FPP 06.01.a</b> Describe the different food product segments	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> Harvesting	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<b>FPP 06.02.a</b> Identify different types of harvesting	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.03 Fabrication and Processing	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.03.a</b> Identify the different types of food processing and fabrication</p> <p><b>FPP 06.03.b</b> Determine the different ways to fabricate or process each species</p> <p>(RWC04.06.a; RWC04.06.c; RWC04.06.d; RWC04.07.a; RWC04.07.b)</p> <p><b>FPP 06.03.c</b> Analyze the best practices</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.06.a - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Define and narrow a topic for research, developing the central idea, focus, or question at issue</i></p> <p>RWC04.06.c - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness</i></p> <p>RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information</i></p>

	<p>RWC04.07.a - Research and Reasoning - An author's reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Analyze the logic (including assumptions and beliefs) and use of evidence (existing and missing information, primary sources, and secondary sources) used by two or more authors presenting similar or opposing arguments (such as articles by two political co</i></p> <p>RWC04.07.b - Research and Reasoning - An author's reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Evaluate the accuracy of the information in a text, citing text-based evidence, author's use of expert authority, and author's credibility to defend the evaluation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.04. Preservation	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.04.a</b> Define Food Preservation</p> <p><b>FPP 06.04.b</b> Identify the process of Food Preservation</p> <p><b>FPP 06.04.c</b> Describe the use of heat, refrigeration, and freezing in food preservation</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.05. Storage/Handling	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.05.a</b> Identify the different areas of storage and handling for each species</p> <p><b>FPP 06.05.b</b> Explain recommended handling and storage procedures</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.05. Packaging	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.05.a</b> Identify the different types of packaging</p> <p><b>FPP 06.05.b</b> Explain the characteristics of packaging material</p> <p><b>FPP 06.05.c</b> Describe the various aspects of a package</p>	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.05. Labeling	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.06.a</b> Identify the parts of a food label</p> <p><b>FPP 06.05.b</b> Explain the importance of food labeling</p> <p><b>FPP 06.05.c</b> Analyze the contents of a food label (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.05. Product Marketing (See Also Ag Business)	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
FPP 06.06.a. List and define the 4 Ps of marketing	<b>Academic Content Knowledge Alignment:</b>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.07. Fruits/Vegetables	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.07.a</b> Identify general properties of product</p> <p><b>FPP 06.07.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.07.c</b> Analyze how product is stored and handled;</p> <p>(RWC04.10.c)</p> <p><b>FPP 06.07.d</b> Create guidelines to maximize food product efficiency and longevity (enzyme activity)</p> <p>(RWC03.05.a; RWC03.05.b; RWC03.02.g; RWC03.03.a; RWC04.06.a; RWC04.06.c; RWC04.06.d; RWC04.07.a; RWC04.07.b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC03.02.g - Writing and Composition - Ideas, evidence, structure, and style create persuasive, academic, and technical texts for particular audiences and specific purposes - <i>Draw a conclusion by synthesizing information</i></p> <p>RWC03.03.a - Writing and Composition - Standard English conventions effectively communicate to targeted audiences and purposes - <i>Follow the conventions of Standard English to write varied, strong, correct, complete sentences</i></p> <p>RWC03.05.a - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Articulate a position through a concise and focused claim or thesis statement, and advance it using evidence, examples, and counterarguments</i></p> <p>RWC03.05.b - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Locate and select appropriate information that clearly supports a definite purpose, topic, or position</i></p> <p>RWC04.06.a - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Define and narrow a topic for research, developing the central idea, focus, or question at issue</i></p> <p>RWC04.06.c - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share</p>

	<p>findings and conclusions - <i>Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness</i></p> <p>RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information</i></p> <p>RWC04.07.a - Research and Reasoning - An author's reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Analyze the logic (including assumptions and beliefs) and use of evidence (existing and missing information, primary sources, and secondary sources) used by two or more authors presenting similar or opposing arguments (such as articles by two political co</i></p> <p>RWC04.07.b - Research and Reasoning - An author's reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Evaluate the accuracy of the information in a text, citing text-based evidence, author's use of expert authority, and author's credibility to defend the evaluation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.08. Meats	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.08.a</b> Identify general properties of product</p> <p><b>FPP 06.08.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.08.c</b> Analyze how product is stored and handled; (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.08.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.09 Dairy	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.09.a</b> Identify general properties of</p> <p><b>FPP 06.09.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.09.c</b> Analyze how product is stored and handled</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.09.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.10 Fish	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.10.a</b> Identify general properties of product</p> <p><b>FPP 06.10.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.10.c</b> Analyze how product is stored and handled</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.10.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.11 Poultry/Eggs	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.11.a</b> Identify general properties of product</p> <p><b>FPP 06.11.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.11.c</b> Analyze how product is stored and handled (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.11.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.12. By Products	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.12.a</b> Identify general properties of product</p> <p><b>FPP 06.12.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.12.c</b> Analyze how product is stored and handled</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.12.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b>	
FPP 06.13. Sugars and Candies	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.13.a</b> Identify general properties of product</p> <p><b>FPP 06.13.a</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.13.a</b> Analyze how product is stored and handled</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.13.a</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.14. Herbs/Spices	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.14.a</b> Identify general properties of product</p> <p><b>FPP 06.14.a</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.14.a</b> Analyze how product is stored and handed</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.14.a</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.15 Fats and Oils	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.15.a</b> Identify general properties of product</p> <p><b>FPP 06.15.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.15.c</b> Analyze how product is stored and handled (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.15.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 06.16 Grains and Cereals	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 06.16.a</b> Identify general properties of product</p> <p><b>FPP 06.16.b</b> Determine proper harvest and processing methods for product</p> <p><b>FPP 06.16.c</b> Analyze how product is stored and handled (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 06.16.d</b> Evaluate guidelines to maximize food product efficiency and longevity (shelf life)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>
<b>Prepared Completer Competencies:</b> FPP 07. Understanding Food Quality	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 07.01 Food Defects	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 07.01.a</b> Identify forms of food defects (blood spots, bruises, PSE, DFD, Dark cutter, off flavored dairy)</p> <p><b>FPP 07.01.b</b> Determine causes of food defects  (SCI 1.2b SCI 1.4b; SCI 2.6b)</p> <p><b>FPP 07.01.c</b> Develop processes to minimize food defects;  (RWC04.06.a; RWC04.06.c; RWC04.06.d; RWC04.07.a; RWC04.07.b)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.06.a - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Define and narrow a topic for research, developing the central idea, focus, or question at issue</i></p>

<p><b>FPP 07.01.d</b> Analyze a production chain for best practices</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p>RWC04.06.c - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness</i></p> <p>RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - <i>Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information</i></p> <p>RWC04.07.a - Research and Reasoning - An author’s reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Analyze the logic (including assumptions and beliefs) and use of evidence (existing and missing information, primary sources, and secondary sources) used by two or more authors presenting similar or opposing arguments (such as articles by two political co</i></p> <p>RWC04.07.b - Research and Reasoning - An author’s reasoning is the essence of legitimate writing and requires evaluating text for validity and accuracy - <i>Evaluate the accuracy of the information in a text, citing text-based evidence, author’s use of expert authority, and author’s credibility to defend the evaluation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p> <p>SCI1.2.b-Science, Physical Science, Matter has definite structure which determines characteristic physical and chemical properties. -Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity</p>
---	--

	<p>SCI1.4.b Atoms bond in different ways to form molecules and compounds that have definite properties- Gather, analyze, and interpret data on chemical and physical properties of different compounds such as density, melting point, boiling point, pH, and conductivity</p> <p>SCI2.6.b-Science, Life Science, Cells, tissues, organs, and organ systems maintain relatively stable internal environments – even in the face of changing external environments. - Analyze and interpret data on homeostatic mechanisms using direct and indirect evidence to develop and support claims about the effectiveness of feedback loops to maintain homeostasis</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 07.02 Regulation	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 07.02.a</b> Identify different types of regulation (safety, grades, wholesomeness, quality)</p> <p><b>FPP 07.02.b</b> Determine agencies that regulate food (see also Food Safety and Sanitation)</p> <p><b>FPP 07.02.c</b> Compare US regulations on domestic and imported food  (RWC02.02.a; RWC02.02.b; RWC02.02.c; RWC02.02.d; RWC02.02.e)</p> <p><b>FPP 07.02.d</b> Analyze the effectiveness and efficiency, impact of the regulation on profitability of product  (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC02.02.a - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - <i>Use reading and note-taking strategies (outlining, mapping systems, skimming, scanning, key word search) to organize information and make connections within and across informational texts</i></p> <p>RWC02.02.b - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - <i>Use semantic cues, signal words, and transitions to identify text structures (such as critique, proposition/support, inductive/deductive) and to summarize central ideas and supporting details</i></p> <p>RWC02.02.c - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - <i>Obtain and use information from text and text features (index, bold or italicized text, subheadings, graphics) to answer questions, perform specific tasks, or identify and solve problems</i></p>

	<p>RWC02.02.d - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - <i>Explain and interpret the visual components supporting the text (maps, complex tables and diagrams, and transitional devices, such as use of white space)</i></p> <p>RWC02.02.e - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - <i>Identify, analyze, and evaluate rhetorical devices and appeals used to advance an author's purpose and viewpoint.</i></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 07.03 Grading	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 07.03.a</b> Identify purposes of food grading</p> <p><b>FPP 07.03.b</b> Determine types of grading systems based on product</p> <p><b>FPP 07.03.c</b> Utilize grading to evaluate product</p> <p><b>FPP 07.03.d</b> Analyze the effectiveness of grading practices on the markets of food products</p> <p>(RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 07.04 Inspection	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 07.04.a</b> Identify types of food inspections</p> <p><b>FPP 07.04.b</b> Describe the role of inspection in providing a safe food supply</p> <p><b>FPP 07.04.c</b> Evaluate the inspection processes (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 07.04.d</b> Analyze the effectiveness of inspection practices on the safety of food products (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i></p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 07.05 Consumer Perception (See also Ag Business - supply and demand)	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 07.05.a</b> Identify food qualities for consumers (price, appearance, convenience, wholesomeness, packaging, preservatives)</p> <p><b>FPP 07.05.b</b> Determine the impact of food choices on the food markets</p> <p><b>FPP 07.05.c</b> Create a marketing plan for food products in response to food preferences (MAT 1.4a; MAT 3.2a)</p> <p><b>FPP 07.05.d</b> Develop products for markets based on food preferences</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p> <p>MAT3.2.a-Mathematics, Data Analysis, Statistics, and Probability, Evaluation of the quality of observational studies, surveys, and experimental studies. - Identify the characteristics of a well designed and well-conducted survey.</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include: Issues in Food Science</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 07.06.a</b> Identify pressing issues in food industry</p> <p><b>FPP 07.06.b</b> Evaluate validity of the issue</p> <p><b>FPP 07.06.c</b> Analyze the politics and underlying issues related to issue (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>FPP 07.06.d</b> Develop a position statement regarding issue and education others (RWC03.05.a; RWC03.05.b; RWC03.02.g)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC03.02.g - Writing and Composition - Ideas, evidence, structure, and style create persuasive, academic, and technical texts for particular audiences and specific purposes - <i>Draw a conclusion by synthesizing information</i></p> <p>RWC03.05.a - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Articulate a position through a concise and focused claim or thesis statement, and advance it using evidence, examples, and counterarguments</i></p> <p>RWC03.05.b - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - <i>Locate and select appropriate information that clearly supports a definite purpose, topic, or position</i></p> <p>RWC04.02.a - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Synthesize information to support a logical argument</i></p> <p>RWC04.02.e - Research and Reasoning - Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment - <i>Summarize ideas that include alternate views, rich detail, well developed paragraphs, and logical argumentation</i></p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies</p>

	require high-quality reasoning - <i>Implement a purposeful and articulated process to solve a problem</i>
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>

<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>	
<b>Pathway(s):</b>	<b>Food Products &amp; Processing</b>	
<b>Prepared Completer Competencies:</b> FPP 08. Meat Science		
<b>High School Expectations</b>		
<b>Concepts and skills students know include:</b> Carcass Evaluation		
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>	
<p><b>FPP 08.01.a</b> Use visual appraisal to predict the quality and yield grade of a carcass</p> <p><b>FPP 08.01.b</b> Define measurement tools to predict the quality and yield grade of a carcass (MAT 1.4a)</p> <p><b>FPP 08.01.c</b> Use measurement tools to predict the quality and yield grade of a carcass (MAT1.4a)</p> <p><b>FPP 08.01.d</b> Predict carcass quality based on live animal evaluation and husbandry practices</p>	<b>Academic Content Knowledge Alignment:</b>	
	<p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p>	
	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>	

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 08.02 Yield Grade	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 08.02.a</b> Define yield grade and calculate dressing percentages (MAT 1.4a)</p> <p><b>FPP 08.02.b</b> Explain yield grade factors</p> <p><b>FPP 08.02.c</b> Evaluate carcass indicators to determine yield grade (MAT 1.4a)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.a-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Use appropriate computation methods that encompasses estimation, calculation, and degree of precision.</p>
	<p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 08.03 Cut Identification	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>FPP 08.03.a</b> Identify wholesale cuts</p> <p><b>FPP 08.03.b</b> Identify retail cuts</p> <p><b>FPP 08.03.c</b> Explain and present the importance of cut identification as it relates to animal production</p> <p>(RWC01.07.b; RWC01.07.c; RWC01.07.d; RWC01.07.e)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC01.07.b - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Use verbal and nonverbal techniques to communicate information</i></p> <p>RWC01.07.c - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Define a position and select evidence to support that position</i></p> <p>RWC01.07.d - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Develop a well-organized presentation to defend a position</i></p> <p>RWC01.07.e - Oral Expression and Listening - Oral presentations require effective preparation strategies - <i>Use effective audience and oral delivery skills to persuade an audience</i></p>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
--	--

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> FPP 08.04. Quality Grade	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
FPP 08.04.a Define quality grade	<b>Academic Content Knowledge Alignment:</b>
FPP 08.04.b Explain quality grade factors	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
FPP 08.04.c Evaluate carcass indicators to determine quality grade	