

# 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>Kaitly 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>Agribusiness Systems</b>	
<b>Prepared Completer Competencies:</b> <b>AB 01: describe agribusinesses, the relationship of agribusiness to the industry of agriculture and will identify opportunities in the agribusiness systems pathway</b>		
<b>High School Expectations</b>		
<b>Concepts and skills students know include:</b> <b>AB 01.01 Understanding the world food situation</b>		
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>	
<p><b>ABS.01.01.a.</b> Define the difference in food supply and food need</p> <p><b>ABS.01.01.b.</b> Analyze global trends (population, societal, income, health, environmental) and the impact on food supply</p> <p>(MAT1.4a MAT 2.2b; MAT2.2d; MAT2.3a; MAT2.3b; MAT3.1a; MAT 3.1b; MAT 3.1c; MAT 3.2b; RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>ABS.01.01.c.</b> Relate trends of food supply and food need to theories of Thomas Malthus and the work of Norman Borlaug</p>	<p>Academic Content Knowledge Alignment:</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>MAT2.2.b-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. - Distinguish between functions and relations defined in any representation.</p> <p>MAT2.2.d- Make qualitative statements about the rate of change of a function, based on its graph or table or values.</p> <p>MAT2.3.a-Mathematics, Patterns, Functions, and Algebraic Structures, Application of transformations, including arithmetic combinations (addition, subtraction, and multiplication) and translations (vertical, horizontal, and dilations) to representations of elementary functions using tables, graphs,</p>	

<p>(RWC03.05.a; RWC03.05.b; RWC03.02.g; RWC03.03.a)</p>	<p>symbols, text, and geometric models, using all available tools, including technology. - Sketch the graph of common elementary functions and translations of those functions.</p> <p>MAT2.3.b-Mathematics, Patterns, Functions, and Algebraic Structures, Application of transformations, including arithmetic combinations (addition, subtraction, and multiplication) and translations (vertical, horizontal, and dilations) to representations of elementary functions using tables, graphs, symbols, text, and geometric models, using all available tools, including technology. - Given two functions in any representation, evaluate the sum and difference of the two functions.</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>MAT3.2.b- - Differentiate between the value of observational studies as useful for suggesting patterns in data and relationships between variables and experimental studies as useful for establishing cause and effect.</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>
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	<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 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: ABS.01.02 understand the history and global significance of agribusinesses</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.01.02.a.</b> Define major components of agribusiness systems</p> <p><b>ABS.01.02.b.</b> Define the major trends and relationships of agribusiness to global agriculture production</p> <p>( MAT1.4a; MAT2.2d; MAT2.3a; MAT2.5e; MAT3.1a; MAT 3.3a;)</p> <p><b>ABS.01.02.c.</b> Identify various cultural perspectives in agriculture and the impact on agribusiness systems</p> <p><b>ABS.01.02.d.</b> Understand current cultural perspectives, global trade, and environmental impact of agriculture and the impact on agribusiness systems</p> <p>(MAT1.4a; MAT2.2d; MAT2.3a; MAT2.5e; MAT3.1a; MAT3.3a; MAT 3.3c; RWC03.02.g)</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>MAT2.2.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>MAT2.3.a-Mathematics, Patterns, Functions, and Algebraic Structures, Application of transformations, including arithmetic combinations (addition, subtraction, and multiplication) and translations (vertical, horizontal, and dilations) to representations of elementary functions using tables, graphs, symbols, text, and geometric models, using all available tools, including technology. - Sketch the graph of common elementary functions and translations of those functions.</p> <p>MAT2.5.e-Mathematics, Patterns, Functions, and Algebraic Structures, Solutions to equations, inequalities and systems of equations using all available tools, including technology. - Solve systems of linear equations and inequalities with two variables using algebraic methods (substitution and elimination) or graphing.</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>MAT3.3.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>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> <hr/> <p><b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b></p>
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<b>High School Expectations</b>	
<b>Concepts and skills students know include: ABS.01.03 understand the history and future response in agribusiness systems to agriculture</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.01.03.a.</b> Determine important historical trends in agribusiness systems</p> <p><b>ABS.01.03.b.</b> Describe evolution and technological advances in agribusiness systems</p> <p><b>ABS.01.03.c.</b> Analyze trends (population, societal, income, health, environmental) and their impact on agribusiness</p> <p>(MAT 1.2.a; MAT1.4.a; MAT2.2.d; RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>ABS.01.03.d.</b> Predict future trends in agribusiness systems</p> <p>(MAT2.1.a; MAT2.2.d; MAT 3.2.b; RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.2.a-Mathematics, Number Sense, Properties, and Operations, Use of number theory arguments to justify relationships involving whole numbers. - Develop and justify conjectures about relationships involving whole numbers.</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>MAT2.2.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>MAT3.2.b-Mathematics, Data Analysis, Statistics, and Probability, Evaluation of the quality of observational studies, surveys, and experimental studies. - Differentiate between the value of observational studies as useful for suggesting patterns in data and relationships between variables and experimental studies as useful for establishing cause and effect.</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> <b>ABS.01.04 relate the segments of the agriculture industry and their distribution channels on the efficiency of agribusinesses</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.01.04.a.</b> Define agriculture industry segments (producers, processors, consumers, etc) and distribution channels</p> <p><b>ABS.01.04.b.</b> Explain the local, regional, national and global agriculture production and the role of agribusiness at each level</p> <p><b>ABS.01.04.c.</b> Describe the movement of agriculture products through industry segments and industry distribution channels</p> <p><b>ABS.01.04.d.</b> Analyze the changes in agribusiness management to the efficient production and distribution of agriculture products</p> <p>(MAT3.1.a; MAT 3.3a; RWC04.02.a; RWC04.02.e; RWC04.10.c)</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>MAT3.3.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>RWC04.02.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>

	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>
	<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: ABS01.05 create an individualized career and academic plan (ICAP) correlating to opportunities in agribusinesses</b>	
<b>Evidence Outcomes - Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.01.05.a.</b> Identify careers in agribusiness systems and explore advantages and disadvantages of each</p> <p><b>ABS.01.05.b.</b> Choose a career based upon skills and education necessary for a career</p> <p><b>ABS.01.05.c.</b> Develop an ICAP specific to an agribusiness systems</p> <p>(RWC03.05.a; RWC03.05.b; RWC03.02.g; RWC03.03.a)</p> <p><b>ABS.01.05.d.</b> Review, modify and implement agribusiness system ICAP</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>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
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<b>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS 02 The student will describe skills necessary in successful agribusinesses and ethical business practices</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.02.01 develop skills necessary in the agribusiness pathway</b>	
<b>Evidence Outcomes Students can:</b>	<b>21st Century Skills and Readiness Competencies</b>
<p><b>ABS.02.01.a.</b> Identify skills (analytical, knowledge, communication, confidence, work ethic, honesty) used by personnel working in agribusinesses</p> <p><b>ABS.02.01.b.</b> Analyze personal skills and determine a path for skill development or improvement (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>ABS.02.01.c.</b> Determine the impact of personal skills in the success and failure of agribusinesses</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>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
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<b>High School Expectations</b>	
<b>Concepts and skills students know include: ABS.02.02 communicate their abilities, skills and experience in written and oral form</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.02.02.a.</b> Identify purpose and function of a job application, resume, cover letter and job interview</p> <p><b>ABS.02.02.b.</b> Identify personal skills, abilities, experience and integrate them into a job application, resume, cover letter and job interview</p> <p><b>ABS.02.02.c.</b> Analyze career opportunities (skills) compared to personal skills, abilities, experience presented on a job application, resume, cover letter and in a job interview</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: ABS.02.03 understand professionalism in communication, business etiquette and dress/attire</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.02.03.a.</b> Identify characteristics of professionalism</p> <p><b>ABS.02.03.b.</b> Understand dress, attire, communication skills necessary in the workplace</p> <p><b>ABS.02.03.c.</b> Distinguish situations where professionalism is tested in the workplace</p> <p><b>ABS.02.03.d.</b> Analyze situations where work place ethics and professionalism were compromised</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>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS.03 understand record keeping systems and utilize records to assist in financial management of agribusiness</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.03.01 understand record keeping and accounting principles</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.03.01.a.</b> Identify different methods and importance of record keeping and accounting</p> <p><b>ABS.03.01.b.</b> Classify record keeping and accounting procedures as a particular method</p> <p><b>ABS.03.01.c.</b> Utilize accounting and record keeping in an agribusiness</p> <p>(MAT1.4.a)</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: ABS.03.02 utilize contracts in an agribusiness scenario</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.03.02.a.</b> Define and determine essential components of a contract</p> <p><b>ABS.03.02.b.</b>Determine types of contracts and distinguish between good and bad contracts</p> <p><b>ABS.03.02.c.</b>Analyze contracts utilized in agribusinesses (RWC04.02.a; RWC04.02.e; RWC04.10.c)</p> <p><b>ABS.03.02.d</b> Write and utilize contracts (RWC03.05.a; RWC03.05.b; RWC03.02.g; RWC03.03.a)</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>RWC04.02.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</p>

	<p>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>	
<b>ABS.03.03 recognize parts of a financial balance sheet; and utilize a balance sheet to determine the financial condition of an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.03.03.a</b> Describe a financial balance sheet and uses of a financial balance sheet</p> <p><b>ABS.03.03.b</b> Define terms relating to a financial balance set (solvency, liquidity, equity, debt, net worth, return)</p> <p><b>ABS.03.03.c</b> Develop a personal financial balance sheet  (MAT1.4.b)</p> <p><b>ABS.03.03.d</b> Analyze financial balance sheets to determine the financial condition of an agribusiness  (MAT3.3.a)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT1.4.b-Mathematics, Number Sense, Properties, and Operations, Application of computation and estimation. - Perform operations (addition, subtraction, multiplication, and division) on numbers written in scientific notation with technology.</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><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>ABS.03.03 compile an income and expense record and utilize records to manage an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.03.03.a</b> Define income, expense, and capital transactions; the purpose of each and classify items accordingly</p> <p><b>ABS.03.03.b</b> Complete an income, expense and capital transaction record</p> <p><b>ABS.03.03.c</b> Evaluate income and expense ratios to manage an agribusiness</p> <p>(MAT 1.4a; MAT 3.3a; MAT3.3.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.c- - 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: ABS.03.04 utilize data to effectively manage an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.03.04.a</b> Describe purpose of breeding record, production records, diary, herd check, health records, yield data</p> <p><b>ABS.03.04.b</b> Develop or utilize current data management systems</p> <p><b>ABS.03.04.c</b> Utilize data to summarize production and/or develop efficiency factors for production  (MAT3.1.b; MAT3.1c;)</p> <p><b>ABS.03.04.d</b> Utilize data to make improvements in an agribusiness</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><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: ABS.03.05 create a cash flow or budget to enhance management decisions in an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.03.05.a</b> Identify purpose and parts of a cash flow or budget</p> <p><b>ABS.03.05.b</b> Create a cash flow or budget for an agribusiness</p> <p><b>ABS.03.05.c</b> Create partial budgets or enterprise budgets for an agribusiness</p> <p><b>ABS.03.05.d</b> Utilize a cash flow and budgets to make management decisions in an agribusiness</p> <p>(MAT 1.4a; MAT3.1.c)</p>	<p>Academic Content Knowledge Alignment:</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.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><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>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS.04 understanding of current agriculture issues and important policies and laws in agriculture</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.04.01 articulate an educated position regarding agriculture issues</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.04.01.a</b> Define issue; identify important issues in agriculture</p> <p><b>ABS.04.01.b</b> Determine impact of issues on agriculture</p> <p><b>ABS.04.01.c</b> Develop deliver an action plan around an agriculture issue</p> <p>(RWC04.03.a; RWC04.03.c; RWC04.03.d; 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> <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><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>ABS.04.02 understand how agricultural laws and policies impact practices in agriculture industry</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.04.02.a</b> Define ag law and ag policy and distinguish how laws and policies are created</p> <p><b>ABS.04.02.b</b> Identify laws and their impacts on the legal responsibilities and liabilities of an agricultural business</p> <p><b>ABS.04.02.c</b> Develop an action plan to comply with an agricultural policy or law</p> <p>(RWC04.10.c)</p> <p><b>ABS.04.02.d</b> Create an advocacy team around an agricultural policy or law and make presentation to appropriate audiences</p> <p>(RWC01.07.b; RWC01.07.c; RWC01.07.d; RWC01.07.e; 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>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> <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</i></p>

	<p><i>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>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS.04. implement principles of agriculture economics within an agricultural business</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.04.03 understand the principles of supply and demand</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.04.03.a</b> Define and describe supply and demand</p> <p><b>ABS.04.03.b</b> Create a demand curve and schedule</p> <p><b>ABS.04.03.c</b> Track historical data on supply and demand and impact on prices of commodities and agricultural products</p> <p><b>ABS.04.03.d</b> Determine price for a product utilizing supply and demand information</p> <p>(MAT2.5c ; MAT2.5e; MAT2.6.c; MAT2.6.d)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT2.5.c-Mathematics, Patterns, Functions, and Algebraic Structures, Solutions to equations, inequalities and systems of equations using all available tools, including technology. - Rewrite literal equations in terms of an unknown variable.</p> <p>MAT2.5.e- - Solve systems of linear equations and inequalities with two variables using algebraic methods (substitution and elimination) or graphing.</p> <p>MAT2.6.c-Mathematics, Patterns, Functions, and Algebraic Structures, Use of elementary functions (linear, quadratic, power, and exponential and their inverses) and their transformations to identify essential quantitative relationships in a situation and to model real world situations, using all available tools, including technology. - Analyze the reasonableness of a solution in its given context and compare the solution to appropriate graphical and numerical estimates.</p>

	MAT2.6.d- - Represent and solve problems involving direct and inverse variations and a combination of direct and inverse variations.
	<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>	
<b>ABS.04.04 Student will understand the law of diminishing returns and the impact on product pricing</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.04.04.a</b> Understand and describe the law of diminishing returns</p> <p><b>ABS.04.04.b</b> Describe input basis</p> <p><b>ABS.04.04.c</b> Utilize the law of diminishing returns to hypothesize changes in products, prices, supply and demand (MAT2.6.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT2.6.c-Mathematics, Patterns, Functions, and Algebraic Structures, Use of elementary functions (linear, quadratic, power, and exponential and their inverses) and their transformations to identify essential quantitative relationships in a situation and to model real world situations, using all available tools, including technology. - Analyze the reasonableness of a solution in its given context and compare the solution to appropriate graphical and numerical estimates.</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>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS.05 implement principles of agricultural marketing within an agricultural business</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.05.01 understand the importance of a marketing chain</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.05.01.a</b> Understand 6 different types of marketing (commodity, local, niche, product) and the free-market economy</p> <p><b>ABS.05.01.b</b> Distinguish the difference between horizontal coordination and vertical integration</p> <p><b>ABS.05.01.c</b> Describe marketing legislation and organizations (check off, cooperatives, contracts, agreements, NAFTA, exports)</p> <p><b>ABS.05.01.d</b> Analyze marketing trends based upon influential factors (integration, niche, check-off)</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>

	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
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<b>High School Expectations</b>	
<b>Concepts and skills students know include: ABS.05.02 describe the process of commodity marketing</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.05.02.a</b> Identify and describe the commodity exchanges and define commodity terms (futures contract, hedge, speculator)</p> <p><b>ABS.05.02.b</b> Trace the path of a commodity trade</p> <p><b>ABS.05.02.c</b> Understand how profit and loss is generated through a commodity trade</p> <p><b>ABS.05.02.d</b> Determine profit and loss through a futures contract, hedging or speculating activity</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>	
<b>ABS.05.03</b> appreciate the importance of customer relations and sales techniques in an agriculture marketing	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.05.03.a</b> Describe different sales techniques and the impact of customer relations within an agribusiness</p> <p><b>ABS.05.03.b</b> Identify and discuss the sales technique and importance of customer relations (RWC01.01.f)</p> <p><b>ABS.05.03.c</b> Develop a plan to expand a customer base utilizing sales and customer relation skills</p> <p><b>ABS.05.03.d</b> Implement sales techniques and customer relations skills by selling a product through the FFA (RWC01.07.b; RWC01.07.c; RWC01.07.d; RWC01.07.e)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>RWC01.01.f - Oral Expression and Listening - Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness - <i>Select appropriate technical or specialized language</i></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>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS.06 develop skills in agribusiness management</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.06.01 understand the types of ownership in an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.06.01.a</b> Define types of business structures (sole proprietorship, partnership, Corporation, LLC, cooperative)</p> <p><b>ABS.06.01.b</b> Determine advantages and disadvantages of different business structures (RWC04.10.a; RWC04.10.b; RWC04.10.c)</p> <p><b>ABS.06.01.c</b> Understand legal obligations for each type of agribusiness ownership</p> <p><b>ABS.06.01.d</b> Analyze industry to compare size of business to types of business structure (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.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>

	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>
	<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: ABS.06.02 develop skills in agribusiness management</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.06.02.a</b> Identify management skills (problem solving) and why management is important in an ag business</p> <p><b>ABS.06.02.b</b> Determine impact of financing, marketing, and risk management on the success of an agricultural business</p> <p><b>ABS.06.02.c</b> Develop a management plan for an agribusiness</p> <p><b>ABS.06.02.d</b> Analyze ag businesses for positive and negative management techniques and their impact on the agriculture industry</p> <p>(RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></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: ABS.06.03 develop efficiency factors to manage an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.06.03.a</b> Understand efficiency factors and how an efficient operation can impact business success</p> <p><b>ABS.06.03.b</b> Calculate different efficiency factors for given agribusiness scenarios</p> <p><b>ABS.06.03.c</b> Develop and calculate efficiency factors for personal agribusiness enterprise</p> <p><b>ABS.06.03.d</b> Change or make management decisions based upon efficiency factor information (MAT3.4a)</p>	<p><b>Academic Content Knowledge Alignment:</b></p> <p>MAT3.4.a-Mathematics, Data Analysis, Statistics, and Probability, Interpretation of results of a study, including inferences and predictions. - Define and explain the meaning of significance (both practical and statistical).</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>ABS.06.04 understand the importance of goal setting in an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<b>ABS.06.04.a</b> Define SMART goals (specific, measurable, achievable, realistic and time sensitive)	<b>Academic Content Knowledge Alignment:</b>
<b>ABS.06.04.b</b> Determine characteristics of short, intermediate and long term goals in agribusinesses	<b>Learning &amp; Behavioral Skills (Inquiry, Application in Society &amp; Technology &amp; Nature of...):</b>
<b>ABS.06.04.c</b> Develop short and long term SMART goals for an agribusiness	

<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.06.05 understand the importance of human resources in agribusinesses</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<b>ABS.06.05.a</b> Identify the need for workers in ag businesses	<b>Academic Content Knowledge Alignment:</b>
<b>ABS.06.05.b</b> Understand legal obligations of human resources (workman's compensation, salary, hours, conditions)	
<b>ABS.06.05.c</b> Analyze techniques for effective management of human resources	<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: ABS.06.06 determine tax obligations regarding an agribusiness</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.06.06.a</b> Define taxes (local, state and federal) and importance of tax obligations within business operations</p> <p><b>ABS.06.06.b</b> Understand tax code relating to business operations and what they are used for (i.e. FICA, Medicare, sales taxes)</p> <p>(RWC04.10.c)</p> <p><b>ABS.06.06.c</b> Comply with tax obligations for a business, complete tax forms</p> <p><b>ABS.06.06.d</b> Analyze tax obligations for various businesses</p>	<p><b>Academic Content Knowledge Alignment:</b></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>ABS.06.07 understand the role of finance in agribusiness management</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.06.07.a</b> Distinguish the need for credit in an agribusiness; the sources of credit</p> <p><b>ABS.06.07.b</b> Define the five “C”s” of credit and the determine the their role in establishing credit</p> <p><b>ABS.06.07.c</b> Calculate interest on a loan using different types of interest (MAT1.4.a; MAT 2.5b; MAT2.5c )</p> <p><b>ABS.06.07.d</b> Utilize an amortization schedule to calculate interest on a loan (MAT1.4.a; MAT 2.5b; MAT2.5c)</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>MAT2.5.b-Mathematics, Patterns, Functions, and Algebraic Structures, Solutions to equations, inequalities and systems of equations using all available tools, including technology. - Find solutions to equations involving power and exponential functions; solve these equations graphically or numerically or algebraically using calculators, graphing utilities or other.</p> <p>MAT2.5.c- - Rewrite literal equations in terms of an unknown variable.</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: ABS.06.08 develop an agribusiness plan</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.06.08.a</b> Identify a business plan and determine the importance of a business plan</p> <p><b>ABS.06.08.b</b> Determine essential parts of a business plan</p> <p><b>ABS.06.08.c</b> Develop a plan for an agribusiness incorporating all facets of an ag business (management, finance, risk management, marketing, human resource management taxes, etc)</p> <p>(RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></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>Career Cluster/Cluster Grouping:</b>	<b>Agriculture, Natural Resources &amp; Energy</b>
<b>Pathway(s):</b>	<b>Agribusiness Systems</b>
<b>Prepared Completer Competencies:</b> <b>ABS.07 implement skills in agribusiness management through a Supervised Agricultural Experience Program</b>	
<b>High School Expectations</b>	
<b>Concepts and skills students know include:</b> <b>ABS.07.01 understand the purpose of an SAE</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<b>ABS.07.01.a</b> Define SAE and identify different types of SAEs  <b>ABS.07.01.b</b> Determine student possibilities for an SAE  <b>ABS.07.01.c</b> Design and implement plans for an SAE  <b>ABS.07.01.d</b> Recognize areas to improve and manage within an SAE	<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>	
<b>ABS.07.02 The student will maintain an SAE showing growth and improvement over time</b>	
<b>Evidence Outcomes Students can:</b>	<b>21<sup>st</sup> Century Skills and Readiness Competencies</b>
<p><b>ABS.07.02.a</b> Student will maintain SAE</p> <p><b>ABS.07.02.a</b> Student will utilize techniques in Ag Business (management, record keeping, financing) to improve SAE</p> <p><b>ABS.07.02.a</b> Student will analyze SAE for ways to improve efficiency, productivity, and success (RWC04.10.a; RWC04.10.b; RWC04.10.c)</p>	<p><b>Academic Content Knowledge Alignment:</b></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>