

**CURRICULUM MAPPING TEMPLATE**

**Program: Agriculture, Agriculture Operations and Related Sciences 01.0000**

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
1	<b>SAFETY</b>				
	<p><b>I. Agriculture, Food &amp; Natural Resources</b>  <b>B. Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations.</b></p> <ol style="list-style-type: none"> <li>1. Examine health risks associated with a particular skill to better form personnel safety guidelines.</li> <li>2. Develop response plans to handle emergencies.</li> <li>3. Identify hazards and acquire first aid skills to promote environmental safety.</li> <li>4. Examine required regulations to maintain/improve safety, health, and environmental management systems and sustainable business practices.</li> <li>5. Enact procedures that demonstrate the importance of safety, health, and environmental responsibilities in the workplace.</li> <li>6. Demonstrate methods to correct common hazards.</li> <li>7. Demonstrate application of personal and group health and safety practices.</li> </ol>	<p>The OSHA Outreach Training Program for General Industry. CareerSafe OSHA 10-Hour General Industry course. Require Modules: Intro to OSHA (1 and 2), Safety and Health Programs, Fall Hazards, PPE, Bloodborne Pathogens, Electrical Hazards, Fire Hazards, Emergency Action, etc. Fire, tornado, and Lock Procedure Drills. Daily safety procedures. MAEAP training.</p>			
2	<b>ANIMAL ANATOMY AND PHYSIOLOGY</b>				

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<p><b>I. Animal Systems</b>  <b>B. Classify, evaluate, select and manage animals based on anatomical and physiological characteristics.</b>  2. Apply principles of comparative anatomy and physiology to uses within various animal systems.</p> <p><b>F. Prepare and implement animal handling procedures for the safety of animals, producers and consumers of animal products.</b>  1. Demonstrate safe animal handling and management techniques.  2. Implement procedures to ensure that animal products are safe.</p>	<p>FFA Broiler Project:  Raising meat chickens for industry standards.  Judging  Safely handling large and small animals and equipment.</p>			
	<p><b>I. Animal Systems</b>  <b>B. Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.</b>  1. Examine animal developmental stages.</p> <p><b>C. Classify, evaluate and select animals based on anatomical and physiological characteristics.</b>  1. Describe basic functions of animal cells, organs and systems.  2. Explain how the components and systems of animal anatomy and physiology relate to the production and use of animals.</p>	<p>B1: FFA Broiler Project: weight of chickens, converting grams to pounds, weekly feed to weight ratios. Proper nutrition percentages. Compare to industry standards. Line graph, bar graph and pie graph.</p>	<p>B1: Computing ratios (1)  Percentages (1)  Charts and tables (1)  Bar graphs(1)  Line graphs(1)  Averages(1)  Mass and weight(1)  Metric/English (1)  conversions(1)  Temperature (1)</p>	<p>6.RP.1; 6.RP.2;  6.RP.3; 7.RP.1;  7.RP.2; 7.RP.3;  7.EE.3; 6.EE.2;  6.EE.3; 6.SP.4;  6.SP.5; 7.SP.2;  7.SP.3; 7.SP.4;  8.SP.3; 8.SP.4;  7.EE.2</p>	<p>G.MG.3; S.IC.1;  S.IC.2; S.IC.3; S.IC.4;  S.IC.5; S.IC.6; S.ID.1;  G.MG.1</p>
<b>3</b>	<b>ANIMAL GENETICS AND REPRODUCTION</b>				
	<p><b>I. Animal Systems</b>  <b>B. Classify, evaluate, select and manage animals based on anatomical and physiological characteristics.</b>  3. Select animals for specific purposes and maximum performance based on anatomy and physiology.</p> <p><b>E. Evaluate and select animals based on scientific principles of animal production.</b>  1. Evaluate the male and female reproductive systems in selecting animals.</p>	<p>B3: Probabilities based on Punnett square, selective breeding program.</p>	<p>B3: Probability (3)</p>	<p>7.SP.5; 7.SP.6;  7.SP.7; 7.SP.8</p>	<p>S.CP.2; S.CP.4;  S.CP.5; S.CP.6;  S.CP.7; S.CP.9;  S.MD.1; S.MD.2;  S.MD.3; S.MD.4;  S.MD.5; S.MD.6;  S.MD.7; S.IC.1; S.IC.2</p>

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<p>2. Evaluate animals for breeding readiness and soundness.</p> <p>3. Apply scientific principles in the selection and breeding of animals.</p>				
<b>4</b>	<b>DOMESTIC ANIMAL PRODUCTION</b>				
	<p><b>I. Animal Systems</b></p> <p><b>A. Examine the components, historical development, global implications and future trends of the animal systems industry</b></p> <p>1. Evaluate the development and implications of animal origin, domestication and distribution.</p> <p><b>B. Classify, evaluate, select and manage animals based on anatomical and physiological characteristics.</b></p> <p>1. Classify animals according to hierarchical taxonomy and agricultural use.</p> <p><b>G. Select animal facilities and equipment that provide for the safe and efficient production, housing and handling of animals.</b></p> <p>1. Design animal housing, equipment and handling facilities for the major systems of animal production.</p> <p>2. Comply with government regulations and safety standards for facilities used in animal production</p>	G1 and G2: Designing animal housing facilities and square footage requirements for individual species.	G1 and G2: Linear measure (1) Area measure (1) Multiplication (1) Perimeter (1) Temperature (1) Angles (3)	6.NS.2; 6.NS.3; 7.NS.1; 7.EE.3; 6.G.1; 6.G.2; 6.G.3; 7.G.1; 7.G.4; 7.G.6; 7.G.5	A.APR.1; A.APR.7; N.RN.3; N.Q.1; G.GPE.7; G.MG.2; G.CO.9; G.CO.12; G.CO.13
	<p><b>I. Animal Systems</b></p> <p><b>A. Analyze historic and current trends impacting the animal systems industry.</b></p> <p>1. Explain the variety and scope of managed animal systems in the United States and around the world including: livestock, poultry, aquaculture, companion animals, zoo animals, and exotic animals.</p> <p>2. Explain the historical development of animal systems around the world.</p> <p>3. Describe trends in the animal systems industry.</p> <p>4. Recognize the historical, social, cultural and potential applications of biotechnology in the animal systems industry.</p>	A3: Graph trends in animal systems industry	A3: Line graphs (3)	6.SP.4	
<b>5</b>	<b>ANIMAL HEALTH AND NUTRITION</b>				

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<p><b>I. Animal Systems</b></p> <p><b>C. Provide for the proper health care of animals.</b></p> <ol style="list-style-type: none"> <li>1. Prescribe and implement a prevention and treatment program for animal diseases, parasites and other disorders.</li> <li>2. Provide for the biosecurity of agricultural animals and production facilities.</li> </ol> <p><b>D. Apply principles of animal nutrition to ensure the proper growth, development, reproduction and economic production of animals.</b></p> <ol style="list-style-type: none"> <li>1. Formulate feed rations to provide for the nutritional needs of animals.</li> <li>2. Prescribe and administer animal feed additives and growth promotants in animal production.</li> </ol>	C1, D1 and D2: Provide electrolytes in water based on reading the label and measuring volume. Antibiotic dosage and proper needle size based on weight of animal. Taking temperature of animals	C1, D1 and D2: Volume (1) Temperature (2) Ratio (1) Proportion (2)	6.G.2; 6.G.3; 7.G.6; 8.G.9; 6.EE.2; 7.G.1; 6.RP.1; 6.RP.2; 6.RP.3; 7.RP.1; 7.RP.2; 7.RP.3; 7.EE.3	G.GMD.1; G.GMD.3; G.MG.2; G.MG.3
	<p><b>I. Animal Systems</b></p> <p><b>B. Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.</b></p> <ol style="list-style-type: none"> <li>2. Assess whether the nutritional requirements of a given animal are being met by recording performance and comparing feed variations.</li> <li>3. Design a nutritional plan for a given animal with a clearly stated outcome.</li> </ol>	B3: Mixing nutrients, animal feed additives. Ratios of feed given. Predicting animal outcomes compared to the standards.	B3: Volume (2) Ratio (2) Proportion (2) Predictions (1) Extrapolation (2) Averages (1)	6.G.2; 6.G.3; 7.G.6; 8.G.9; 6.EE.2; 7.G.1; 6.RP.1; 6.RP.2; 6.RP.3; 7.RP.1; 7.RP.2; 7.RP.3; 7.EE.3	G.GMD.1; G.GMD.3; G.MG.2; G.MG.3; N.Q.1; N.Q.2; N.Q.3; S.ID.6
<b>6</b>	<b>PLANT ANATOMY PHYSIOLOGY</b>				
	<p><b>II. Plant Systems</b></p> <p><b>A. Apply knowledge of plant classification, plant anatomy and plant physiology to the production and management of plants.</b></p> <ol style="list-style-type: none"> <li>1. Classify agricultural plants according to taxonomy systems.</li> <li>2. Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.</li> <li>3. Apply knowledge of plant physiology and energy conversion to plant systems.</li> </ol>	Genus and species A3: Measuring plant growth rate	A3: Height (1) Weight (1) Chart (1) Tables (1) Graph (2)	6.EE.2; 6.EE.3; 6.SP.4; 6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4; 8.SP.3; 8.SP.4	S.IC.1; S.IC.2; S.IC.3; S.IC.4; S.IC.5; S.IC.6; S.ID.1
	<p><b>II. Plant Systems</b></p> <p><b>B. Apply the principles of classification, plant anatomy, and plant physiology to plant</b></p>	B3: Agscience projects based on	B3: Temperature (1) Metric/English	6.NS.2; 6.NS.3; 7.NS.1; 7.EE.3	A.APR.1; A.APR.7; N.RN.3; N.Q.1

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<p><b>production and management.</b></p> <ol style="list-style-type: none"> <li>1. Examine unique plant properties to identify/describe functional differences in plant structures including roots, stems, flowers, leaves, and fruit.</li> <li>2. Classify plants based on physiology for taxonomic or other classifications.</li> <li>3. Apply knowledge of plant physiology and energy conservation to plant systems activities.</li> </ol>	plant growth.	Conversion (2)		
<b>7</b>	<b>SOILS AND PLANT NUTRITION</b>				
	<p><b>II. Plant Systems</b></p> <p><b>B. Prepare and implement a plant management plan that addresses the influence of environmental factors, nutrients and soil on plant growth.</b></p> <ol style="list-style-type: none"> <li>3. Develop and implement a fertilization plan for specific plants or crops.</li> </ol>	B3: Calibrating fertilizer nozzles Ratio of fertilizer to water mixing Proportioning fertilizer Parts per million Figuring out percentages of fertilizer to pounds Reading fertilizer soil tests Making fertilizer recommendations Application rates	B3: Area (1) Speed (3) Linear (1) Rate (2) Perimeter (1) Volume and capacity (2) Time (3) English Conversion (3) Number sense (2) Measuring geometric shape of (Field) area (1) Concentration (2)	6.G.1; 6.G.2; 6.G.3; 7.G.1; 7.G.4; 7.G.6; 8.G.9; 6.EE.2; 7.EE.2; 6.RP.1; 6.RP.2; 6.RP.3; 7.RP.1; 7.RP.2; 7.RP.3; 7.EE.3	G.GPE.7; G.MG.2; F.IF.4; F.IF.6; S.ID.7; G.GMD.1; G.GMD.3; G.MG.1; G.MG.3
	<p><b>II. Plant Systems</b></p> <p><b>A. Develop and implement a crop management plan for a given production goal that accounts for environmental factors.</b></p> <ol style="list-style-type: none"> <li>1. Develop a fertilization plan using the results of an analysis and evaluation of nutritional requirements and environmental conditions.</li> <li>2. Evaluate soil/media nutrients using tests of appropriate materials and/or by examining data.</li> </ol>	A1: Calibrating fertilizer nozzles Ratio of fertilizer to water mixing Proportioning fertilizer A2: Parts per	A1: Area (1) Speed (3) Linear (1) Rate (2) Perimeter (1) A2: Volume and capacity (2)	6.G.1; 6.G.2; 6.G.3; 7.G.1; 7.G.4; 7.G.6; 8.G.9; 6.EE.2; 7.EE.2; 6.RP.1; 6.RP.2; 6.RP.3; 7.RP.1; 7.RP.2; 7.RP.3; 7.EE.3;	G.GPE.7; F.IF.4; F.IF.6; S.ID.7; G.GMD.1; G.GMD.3; G.MG.2; G.MG.1; G.MG.3; S.ID.5; S.IC.3

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
		million Figuring out percentages of fertilizer to pounds Reading fertilizer soil tests Making fertilizer recommendations Application rates Analyzing data and making appropriate adjustments based on environmental factors.	Time (3) English Conversion (3) Number sense (2) Measuring geometric shape of (Field) area (1) Concentration (2) Analyzing data (1) Making adjustments (1)	6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4	
<b>8</b>	<b>PLANT CULTURE AND PROPAGATION</b>				
	<b>II. Plant Systems</b> <b>B. Prepare and implement a plant management plan that addresses the influence of environmental factors, nutrients and soil on plant growth.</b> 1. Determine the influence of environmental factors on plant growth. 2. Prepare growing media for use in plant systems. <b>C. Propagate, culture and harvest plants.</b> 1. Demonstrate plant propagation techniques. 2. Develop and implement a plant management plan for crop production. 3. Develop and implement a plan for integrated pest management. 5. Harvest, handle and store crops.	B1: Analyze data and making adjustments based on environmental factors. B2: Learning soil triangle, percentages of sand, silt and clay. Mixing soil media, ratio of perlite to peat moss, etc. C3: Knowing action thresh hold for I.P.M.	B1: Analyzing data (1) B2: Ratio (1) B2: pH (1) B2: Percentages (1) C3: Logic “If – then” procedure (2) C3: Number sense (1) C3: Graph (2) C3: Counting (2) C5: Temperature (2) C5: Humidity (3) C5: Moisture Content (3)	6.RP.1; 6.RP.2; 6.RP.3; 7.RP.1; 7.RP.2; 7.RP.3; 7.EE.2; 7.EE.3; 6.EE.2; 6.EE.3; 6.SP.4; 6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4; 8.SP.3; 8.SP.4; 6.NS.2; 6.NS.3; 7.NS.1; 7.EE.3	S.ID.5; S.IC.3; G.MG.3; S.IC.1; S.IC.2; S.IC.3; S.IC.4; S.IC.5; S.IC.6; S.ID.1; A.APR.1; A.APR.7; N.RN.3; N.Q.1; S.CP.1

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
		C5: Knowing storage temperature, proper humidity, and moisture content.			
	<p><b>II. Plant Systems</b></p> <p><b>A. Develop and implement a crop management plan for a given production goal that accounts for environmental factors.</b></p> <p>3. Manage water conditions for plant growth.</p> <p>4. Manage characteristics of growing media.</p> <p><b>C. Propagate, culture, and harvest plants and plant products based on current industry standards.</b></p> <p>1. Develop a production plan that applies the fundamentals of plant management.</p> <p>2. Store crops using methods that apply fundamentals of plant management.</p> <p>3. Produce crops using a plant management plan.</p> <p>4. Demonstrate plant propagation techniques.</p>	<p>A3: Analyze data and making adjustments based on environmental factors.</p> <p>A4: Learning soil triangle, percentages of sand, silt and clay. Mixing soil media, ratio of perlite to peat moss, etc.</p> <p>C1: Knowing action thresh hold for I.P.M.</p> <p>C2: Knowing storage temperature, proper humidity, and moisture content.</p> <p>C4: Seeding rate, depth and spacing</p>	<p>A3: Analyzing data (1)</p> <p>A4: Ratio (1)</p> <p>A4: Percentages (1)</p> <p>C1: Logic “If – then” procedure (2)</p> <p>C1: Number sense (1)</p> <p>C1: Graph (2)</p> <p>C1: Counting (2)</p> <p>C2: Temperature (2)</p> <p>C2: Humidity (3)</p> <p>C2: Moisture Content (3)</p> <p>C2: pH (1)</p> <p>C4: Rate (1)</p> <p>C4: Linear depth (1)</p> <p>C4: Linear spacing (1)</p>	<p>6.RP.1; 6.RP.2; 6.RP.3; 7.RP.1; 7.EE.2; 7.EE.3; 6.EE.2; 6.EE.3; 6.SP.4; 6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4; 8.SP.3; 8.SP.4; 6.NS.2; 6.NS.3; 7.NS.1; 7.EE.3; 6.RP.3; 7.RP.1</p>	<p>S.ID.5; S.IC.3; G.MG.3; S.IC.1; S.IC.2; S.IC.3; S.IC.4; S.IC.5; S.IC.6; S.ID.1; A.APR.1; A.APR.7; N.RN.3; N.Q.1; S.CP.1</p>
<b>9</b>	<b>NATURAL RESOURCE SYSTEMS</b>				

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<p><b>III. Natural Resources System</b>  <b>A. Explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments.</b>            1. Apply knowledge of natural resource components to the management of natural resource systems.            2. Apply scientific principles of an ecosystem.</p>	<p>A1: General management plan and principals.            Design and implement specific buffer areas between agriculture, natural resource and organic land properties.            Using a Biltmore stick to determine tree dimensions; volume, diameter, and height.            Water quality testing, pH, levels of N,P, K.</p>	<p>A1: Area (3)            Linear measurement (3)            Circumference (3)            Volume (3)            Logarithmic Scale (3)</p>	<p>6.G.1; 6.G.2; 6.G.3;            7.G.1; 7.G.4; 7.G.6;            6.RP.3; 7.RP.1;            8.G.9; 6.EE.2;;            8.EE.5</p>	<p>G.GPE.7; G.MG.2;            G.GMD.1; G.GMD.3;            F.BF.5; F.IF.7</p>
	<p><b>I. Agriculture, Food &amp; Natural Resources</b>  <b>C. Demonstrate stewardship of natural resources in AFNR activities.</b>            1. Demonstrate evidence of interest and concern for natural resource stewardship.            2. Explain the environmental considerations of decision making in AFNR management.  <b>E. Analyze the interaction among ANFR systems in the production, processing and management of food, fiber, and fuel and sustainable use of natural resources.</b>            1. Explain foundational cycles and systems of AFNR.            2. Explain the interconnectedness of systems within AFNR.</p>	<p>Using Ag Issues as a platform for demonstrating evidence of interest.            Volunteering.            Food systems and connections</p>			
10	<b>ENVIRONMENTAL SERVICE SYSTEMS</b>				



Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<p><b>I. Animal Systems</b>  <b>H. Analyze environmental factors associated with animal production.</b>  1. Reduce the effects of animal production on the environment.  2. Evaluate the effects of environmental conditions on animals.</p>	<p>H1: Manure management techniques.  Measuring amount of manure and application rates to a field area.  Percentage of nutrients in manure  H2: Temperature effects on weight of animals</p>	<p>H1: Rates (3)  Weight (3)  Volume (3)  Percentage (3)  H2: Temperature (2)  Weight (2)</p>	<p>6.G.2; 6.G.3; 7.G.6;  8.G.9; 6.EE.2; 7.G.1;  6.RP.2; 6.RP.3;  7.EE.2; 6.RP.1;  6.RP.2; 6.RP.3;  7.RP.1; 7.RP.2;  7.RP.3; 7.EE.3</p>	<p>G.GMD.1; G.GMD.3;  G.MG.2; G.MG.3</p>
	<p><b>II. Plant Systems</b>  <b>C. Propagate, culture and harvest plants.</b>  4. Apply principles and practices of sustainable agriculture to plant production.</p>	<p>C4: Conserving water  Composting for increased organic matter  Integrated Pest Management</p>	<p>C4: Rate (1)  Volume (1)  Temperature (2)  Ratio (2)  Number sense (2)</p>	<p>6.RP.1; 6.RP.2;  6.RP.3; 7.RP.1;  7.RP.2; 7.RP.3;  7.EE.3; 6.G.2; 6.G.3;  7.G.6; 8.G.9; 6.EE.2;  7.G.1; 6.NS.2;  6.NS.3; 7.NS.1</p>	<p>G.MG.3; G.GMD.1;  G.GMD.3; G.MG.2;  A.APR.1; A.APR.7;  N.RN.3; N.Q.1</p>
	<p><b>II. Plant Systems</b>  <b>C. Propagate, culture, and harvest plants and plant products based on current industry standards.</b>  5. Apply principles and practices of sustainable agriculture to plant production.  6. Demonstrate the application of biotechnology to plant production.</p>	<p>C5: Conserving water  Composting for increased organic matter  Integrated Pest Management  Variable Rate Technology  C6: GMO</p>	<p>C5: Rate (1)  Volume (1)  Temperature (2)  Ratio (2)  Number sense (2)</p>	<p>6.RP.1; 6.RP.2;  6.RP.3; 7.RP.1;  7.RP.2; 7.RP.3;  7.EE.3; 6.G.2; 6.G.3;  7.G.6; 8.G.9; 6.EE.2;  7.G.1; 6.NS.2;  6.NS.3; 7.NS.1;</p>	<p>G.MG.3; G.GMD.1;  G.GMD.3; G.MG.2;  A.APR.1; A.APR.7;  N.RN.3; N.Q.1</p>

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
		Tissue cultures			
	<p><b>I. Agriculture, Food &amp; Natural Resources</b>  <b>A. Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food &amp; Natural Resources Career Cluster™.</b></p> <ol style="list-style-type: none"> <li>1. Explain how regulations and major laws impact management of AFNR activities.</li> <li>2. Describe current issues impacting AFNR activities.</li> <li>3. Identify, organize alternatives, and evaluate public policy issues related to AFNR.</li> <li>4. Consider public input in decision-making for AFNR activities.</li> <li>5. Explain the impact of sustainability on ARNR activities and practices.</li> <li>6. Recognize the historical, social, cultural and potential applications of biotechnology on AFNR activities.</li> <li>7. Demonstrate the application of biotechnology to AFNR activities.</li> </ol>	<p>A2: Ag issues  A4: reading survey data or creating surveys to look for trends</p>	A4: analyzing data (3)	6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4	S.ID.5; S.IC.3
<b>11</b>	<b>AGRICULTURAL BUSINESS AND MARKETING</b>				
	<p><b>IV. AFNR Business System</b>  <b>A. Examine the principles of AFNR business.</b></p> <ol style="list-style-type: none"> <li>1. Describe AFNR businesses and identify global opportunities in agribusiness.</li> <li>2. Utilize record keeping to accomplish AFNR business objectives while complying with laws and regulations.</li> <li>3. Demonstrate knowledge of principles in marketing within an AFNR business.</li> <li>4. Demonstrate knowledge of an AFNR plan.</li> </ol>	A2: Accurate record keeping for business objectives and compliance	A2: Analyzing data (1)	6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4	S.ID.5; S.IC.3
	<p><b>I. Agriculture, Food &amp; Natural Resources</b>  <b>A. Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food &amp; Natural Resources Career Cluster™.</b></p> <ol style="list-style-type: none"> <li>9. Examine company performance and goals within AFNR organizations and the AFNR industry.</li> <li>10. Examine the role of AFNR in global, national, and regional economies.</li> </ol>	<p>A9: looking at goals  A12: Economic impact on local economy/society</p>	<p>A9: Analyzing data (2)  A12: Multiplication (2)</p>	6.SP.5; 7.SP.2; 7.SP.3; 7.SP.4; 6.NS.2; 6.NS.3; 7.NS.1; 7.EE.3	S.ID.5; S.IC.3; A.APR.1; A.APR.7; N.RN.3; N.Q.1

Segment	CTE Segments/Performance Elements	CTE Concepts	Math Concepts	Common Core Math Standards Middle School	Common Core Math Standards High School
	<ul style="list-style-type: none"> <li>11. Explain the types of industries, organizations, and activities part of AFNR.</li> <li>12. Explain the influence of AFNR on society.</li> </ul>				
	<p><b>I. Career Ready Practices</b></p> <p><b>A. Career Ready Skills</b></p> <ul style="list-style-type: none"> <li>5. Consider the environmental, social and economic impacts of decisions.</li> </ul>	A5: Economic impact on local economy/society	A5: Multiplication (2)	6.NS.2; 6.NS.3; 7.NS.1; 7.EE.3	A.APR.1; A.APR.7; N.RN.3; N.Q.1
<b>12</b>	<b>CAREER READINESS AND LEADERSHIP</b>				
	<p><b>I. Agriculture, Food &amp; Natural Resources</b></p> <p><b>D. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food &amp; Natural Resources Career Pathways.</b></p> <ul style="list-style-type: none"> <li>1. Locate and identify career opportunities that appeal to personal career goals.</li> <li>2. Match personal interest and aptitudes to selected careers.</li> <li>3. Provide examples and descriptions of various careers in each of the AFNR pathways.</li> </ul>				
	<p><b>I. Career Ready Practices</b></p> <p><b>A. Career Ready Skills</b></p> <ul style="list-style-type: none"> <li>1. Act as a responsible and contributing citizen and employee.</li> <li>2. Apply appropriate academic and technical skills.</li> <li>3. Attend to personal health and financial well-being.</li> <li>4. Communicate clearly, effectively and with reason.</li> <li>6. Demonstrate creativity and innovation.</li> <li>7. Employ valid and reliable research strategies.</li> <li>8. Model integrity, ethical leadership and effective management.</li> <li>9. Plan education and career path aligned to personal goals.</li> <li>10. Use technology to enhance productivity.</li> <li>11. Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>12. Work productively in teams while using cultural/global competence.</li> </ul>	A2: Using appropriate math skills for your career.	A2: See segments 1-11		