

PCC A			
Cluster	Core Idea	Secondary Ideas	Competency
Personal Protective Equipment	Basic First Aid		A1.1
Personal Protective Equipment	Personal Protective Equipment		A1.1
Safety Laws & Practices	Consumer Concerns	Emergency Assessment	A1.2
Safety Laws & Practices	Government Regulation		A1.2
Safety Laws & Practices	OSHA		A1.2
Animal Safety	Animal Handling Safety		A1.3
Animal Safety	Companion Animals		A1.3
Animal Safety	Designing Animal Handling Facilities and Using Equipment		A1.3
Animal Safety	Livestock		A1.3
Biosecurity	Biological Safety		A1.4
Biosecurity	Biosecurity		A1.4
Biosecurity	Zoonotic Diseases		A1.4
Overall Safety	Chemical Safety		A1.5
Overall Safety	Classroom Safety	Site Map, Site Policies	A1.5
Overall Safety	Food Safety		A1.5
Overall Safety	Health Risks		A1.5
Overall Safety	Mechanical Safety		A1.5
Overall Safety	Safety Guidelines		A1.5
Overall Safety	Safety Inspection		A1.5
Overall Safety	Safety Procedures		A1.5
Overall Safety	Standard Operating Procedures		A1.5
Ag Advocacy	Laws, Policies of Agencies	AFNR Legislation, AFNR Regulations, USDA Regulations, Evaluate Policy	A2.1
Global Agriculture	Tariffs	Distribution Channels	A2.2
Agricultural Issues	Analyzing Alternatives	Types of Issues in Agriculture, Implications of Policy on Agriculturalists	A2.3
Agricultural Issues	Current AFNR Issues	Types of Issues in Agriculture, Implications of Policy on Agriculturalists	A2.3
Agricultural Issues	Environmental Impacts	Types of Issues in Agriculture, Implications of Policy on Agriculturalists	A2.3
Agricultural Issues	Environmental Problem Solving	Types of Issues in Agriculture, Implications of Policy on Agriculturalists	A2.3
Agricultural Issues	Identifying Current/Local Issues	World and US Food Production, Identify Stakeholders	A2.3
Agricultural Issues	Issues Identification	Types of Issues in Agriculture, Implications of Policy on Agriculturalists	A2.3
Agricultural Issues	Research Current Policy	Reliable Research Strategies, Informing Opinions	A2.3
Global Trends	International Agriculture		A3.2
Economic Impacts	Stocks	Economic Impacts, Economics	A3.3
Sustainability	Biotechnology in the Environment	Current and Potential Biotechnology Applications	A3.4
Sustainability	Organic vs. Conventional		A3.4
Agribusiness Basics	Business Structures	Basic Types of AFNR Businesses, Examine Company Hierarchy	A4.1
Agribusiness Basics	Team Building		A4.1
Agribusiness Basics	Types of Ag Business	Citizenship	A4.1
Business Plan	Components of AFNR Business Plans		A4.2
Business Plan	Create a Business Plan		A4.2
Business Plan	Futures Market		A4.2
Business Plan	Loans and Credits		A4.2
Marketing Plan	Current Market Trends	Marketing	A4.3
Marketing Plan	Effects of Agricultural Marketing		A4.3
Career Exploration	Career Clusters	Career and College Prep, Career Research, Self-Evaluation, Leadership Traits, Educational and Job Requirements	A5.1

Employability Skills	Goal Setting	Personal and Career Goal Setting, Employability Skills, Environmental Characteristics of Creativity, Academics, 7 habits	A5.2
Employability Skills	Workplace Communication	Effective Communication	A5.2
Experiential Learning	Experiential Learning		A5.3
Record Keeping	Record Keeping	Land Treatment and Application Processes	A6.1
Personal Finance	Cash Flow Analysis		A6.2
Personal Finance	Taxes		A6.2
Personal Finance	Loans and Credits		A6.2
Personal Finance	Personal Finance		A6.2

PCC B		
Cluster	Core Ideas	Competency
Animal Breeds	Breed Identification	B1
Animal Breeds	Designer Breeds	B1
Animal Evaluation & Breeding Soundness	Animal Evaluation	B6
Animal Evaluation & Breeding Soundness	Animal Selection & Evaluation for Breeding Purposes	B6
Animal Facility Design & Management	Animal Housing	B3
Animal Facility Design & Management	Confinement vs. Pasture	B3
Animal Facility Design & Management	Grazing Practices	B3
Animal Facility Design & Management	Manure Management	B3
Animal Facility Design & Management	Designing Animal Handling Facilities and Using Equipment	B3
Animal Health & Disease	Complete Animal Health Checks	B2
Animal Health & Disease	Disease and Parasitology	B2
Animal Health & Disease	Zoonotic Diseases	B2
Animal Husbandry & Management	Life Cycle	B3
Animal Husbandry & Management	Aquaponics	B3
Animal Husbandry & Management	Basic Needs	B3
Animal Husbandry & Management	Castration	B3
Animal Husbandry & Management	Companion Animals	B3
Animal Husbandry & Management	Animal Identification and Record Keeping	B3
Animal Husbandry & Management	Record Keeping	B3
Animal Husbandry & Management	Zoo Animals	B4
Animal Industry Trends	Animal/Product Distribution	B1
Animal Industry Trends	Current Consumption Trends	B1
Animal Industry Trends	Animal Production Trends	B1
Animal Industry Trends	Organic Certification	B1
Animal Products & By-products	Products and By-Products	B4
Animal Safety & Handling	Animal Handling Safety	B3
Animal Safety & Handling	Exotic Animals	B3
Animal Uses/Jobs	Agricultural Use	B1
Animal Uses/Jobs	Livestock	B1

Animal Uses/Jobs	Poultry	B1
Animal Welfare	Animal Welfare vs. Rights	B3
Assisted Reproductive Technologies	Artificial Insemination & Embryo Transfer/Flushing	B6
Biosecurity	Biosecurity	B2
Biosecurity	Biological Safety	B2, B3
Body Systems	Body Systems	B4
Cell Processes	Cell Processes	B4
Cell Processes	Mitosis/Meiosis	B4
Cell Structure	Cell Structure	B4
Comparative Anatomy & Physiology	Comparative Anatomy	B4
Comparative Anatomy & Physiology	Physiology	B4
Domestication & Evolution	Animal Domestication	B1
Domestication & Evolution	Evolution of Organisms	B1
Feed Rations & Formulations	Calculate Nutrient Requirements	B5
Feed Rations & Formulations	Create a Balanced Ration for a Given Animal	B5
Feed Rations & Formulations	Evaluate a Proposed Plan for Effectiveness and Economic	B5
Feed Rations & Formulations	Feed Additives	B5
Feed Rations & Formulations	Feed Rations	B5
Feed Rations & Formulations	Feed Trials	B5
Feed Rations & Formulations	Animal Feed Identification	B5
Genetics	Animal Breeding and Color Genetics	B6
Genetics	Pedigrees	B6
Genetics	Genetics and Punnett Squares	B6
Genetics	Purebred vs. Mixed Breed	B6
Health Tools & Equipment	Veterinary Office Procedures	B2
Health Tools & Equipment	Veterinary Tools & Equipment	B2
Nutrition Terminology & Basics	Nutrition	B5
Reproductive Systems & Cycles	Examine Developmental Stages	B6
Reproductive Systems & Cycles	Gestational Length	B6
Reproductive Systems & Cycles	Reproductive Systems	B6
Taxonomy	Taxonomy	B1

PCC C		
Cluster	Core Idea	Competency
Animal Industry Trends	Organic Certification	C4
Animal Management Practices	Record Keeping	C4
Applications of Biotechnology	Biotechnology in Agriculture	C6
Applications of Biotechnology	Biotechnology in Food	C6
Applications of Biotechnology	Current and Potential Biotechnology Applications	C6
Applications of Biotechnology	History of Biotechnology	C6
Crop Management	Crop Production and Management	C4
Crop Management	Scouting & Crop Management	C4
Crop Management	Storage Methods for Different Crops	C5
Disease Management	Crop Treatment and Application	C4
Disease Management	Plant Diseases	C4
Environmental Interactions	Environmental Considerations	C6
Environmental Interactions	Environmental Factors	C6
Environmental Interactions	Biotic/Abiotic	C6
Genetically Modified Organisms	GMO Regulations	C2
Genetically Modified Organisms	Genetically Modified Organisms	C6
Genetics	Punnett Squares	C6
Greenhouse Production	Planning Greenhouse Sales and Land Lab	C3
Greenhouse Production	Greenhouse/Hoop House Production and Management	C4
Greenhouse Production	Greenhouse/Garden Crop Harvest	C4
Nutrient Practices	Nutrient & Waste Management	C3
Nutrient Practices	Nutrient Application	C3
Nutrient Practices	Nutrient Checks	C3
Nutrient Practices	Nutrient Cycles	C3
Nutrient Practices	Nutrient Management/Pollution	C3
Nutrient Practices	Nutrient Plan	C3
Nutrient Practices	Signs of Nutrient Deficiencies	C3
Nutrient Practices	Sources of Nutrients	C3
Nutrient Practices	Composting	C3

Nutritional Requirements	Fertilizer Calculations	C3
Nutritional Requirements	Fertilizer Labels	C3
Pest Management	Specialized Chemicals	C3
Pest Management	Chemical Regulations	C4
Pest Management	Controlling Fungus/Diseases	C4
Pest Management	IPM Methodology	C4
Pest Management	Pest Management & Identification	C4
Pest Management	Invasive Species	C4
Pest Management	Steps of IPM	C4
Plant Classification	Classify Plants Based on Leaf and Structures	C1
Plant Classification	Dichotomous Keys	C1
Plant Classification	Hierarchical Classification	C1
Plant Classification	Importance of Taxonomy	C1
Plant Classification	Taxonomy	C1
Plant Classification	Using Dichotomous Key to Compare Plants by their Structural Differences	C1
Plant Growth Systems	Transplanting Soil to Soil	C2
Plant Growth Systems	Aquaponics and Hydroponics	C3
Plant Growth Systems	Intro/basics of hydroponics	C3
Plant Industry	Landscaping	C4
Plant Industry	Urban Agriculture	C5
Plant Industry	Plant Related Tools & Equipment	C2, C5
Plant Management	Plant Care	C3
Plant Management	Weed Management and Identification	C4
Plant Media & Soil	Storing Soil Mixtures	C3
Plant Media & Soil	Types of Growing Media	C3
Plant Media & Soil	Preparing Growing Media	C4
Plant Products	Sterilization	C4
Plant Products	Packing	C5
Plant Products	Washing	C5
Plant Products	Biofuels	C6
Plant Properties & Functions	Mitosis/Meiosis	C1

Plant Properties & Functions	Photosynthesis/Cellular Respiration and Energy Conversion	C1
Plant Properties & Functions	Plant Cells	C1
Plant Properties & Functions	Plant Physiology	C1
Plant Properties & Functions	Plant Reproductive Anatomy	C1
Plant Properties & Functions	Plant Structures	C1
Plant Safety	Safety Procedures	C4
Propagation	Asexual propagation	C2
Propagation	Germination Factors	C2
Propagation	Sexual propagation	C2
Soil Profile & Analysis	Soil Drainage	C3
Soil Profile & Analysis	pH	C3
Soil Sciences	Soil profiling & Analysis	C3
Soil Sciences	Soil Surveys	C3
Soil Sciences	Soil Test and Analysis	C3
Watering Systems	Types of Watering Systems	C3
Watering Systems	Water Cycle	C3

PCC D		
Cluster	Core Idea	Competency
AFNR Regulations/Policies	AFNR Legislation	D1
Biotech	Cultural Implications of Biotechnology	D1
Biotech	Historical Implications of Biotechnology	D1
Biotech	Social Implications of Biotechnology	D1
Ecology	Atmosphere	D1
Ecology	Biosphere	D1
Ecology	Ecological Balance	D1
Ecology	Ecology	D1
Ecology	Energy Pyramid (trophic levels)	D1
Ecology	Environmental Factors	D1
Ecology	Geosphere	D1
Ecology	Habitat vs. Niche	D1
Ecology	Hydrosphere	D1, D3
Ecology	Invasive Species	D2
Ecology	Organization of Ecosystems	D2
Ecology	Biotic/Abiotic	D2
Environmental Safety & Hazards	Plan Development	D2
Environmental Safety & Hazards	Pollution Control	D2
Environmental Safety & Hazards	Practical Response Plans	D2
Environmental Safety & Hazards	Reporting Procedures	D2
Environmental Safety & Hazards	Responsible Student Behavior	D2
Environmental Safety & Hazards	Safety Procedures	D2
Plant Physiology	Photosynthesis/Cellular Respiration and Energy Conversion	D2
Plant Physiology	Mitosis/Meiosis	D2, D3
Plant Physiology	Plant Cells	D2
Plant Physiology	Plant Physiology	D3
Stewardship	Nutrient & Waste Management	D3
Stewardship	Composting	D3
Stewardship	Animal Performance	D3

Stewardship	Forestry	D3
Stewardship	The Tragedy of the Commons	D4
Stewardship	Identifying Current/Local Issues	D4
Stewardship	Natural Resource Management	D4
Stewardship	Renewable vs. Nonrenewable Resources	D4
Stewardship	Water Quality Management	D4
Stewardship	Water Testing	D5
Sustainability	Animal Populations	D5
Sustainability	Conservation vs. Preservation	D5
Sustainability	Sustainability	D5
Sustainability	Sustainable Practices	D5
Sustainability	Traditional vs. Sustainable	D5

Career Ready Practices		
LINK to CRP Planning Sheet from Workshop	Link to CRP Matrix	
Competency	Core Ideas	Old Core Idea
Problem Solving (PS)	PS1: Reliable Research	Experiential Learning
		Reliable Research Strategies
		Research Current Policy
	PS2: Impact of Decisions	Balancing Impact
		Impacts of Decisions
		Economic Impact
		Informing Opinions
		Social Impacts
		Implications of Policy on Agriculturalists
		Environmental Impacts
	World and US Food Production	
	PS3: Critical Thinking	Decision Making Process
		Issues Identification
		Analyzing Alternatives
		Current AFNR Issues
		Problem-Based Learning
		Types of Divergent Thinking
PS4: Creativity and Innovation	Stages of the Creative Process	
PS5: Real-World Application	Technical Skills	
	Environmental Problem Solving	
	Types of Issues in Agriculture	
	Define AFNR	
Collaboration (CL)	CL1: Teamwork	Team Building
	CL2: Responsibility and Citizenship	Citizenship
		Responsible Student Behavior
		Employability Skills

	CL3: Leadership and Management	FFA 101
		Leadership Traits
		Leadership/Mentorship
Personal Management (PM)	PM1: Personal Health & Finance	Business and Personal Finance
		Personal Health
		Personal Finance
		Self-Evaluation
	PM2: Career Planning and Goals	Goal Setting
		Career and College Prep
		Career Clusters
		Career Research
		Academics
		Educational and Job Requirements
		Plan Development
		Personal and Career Goal Setting
Communication (CM)	CM1: Communication Skills	Workplace Communication
		Effective Communication
	CM2: Productivity Through Technology	Utilizing Technology