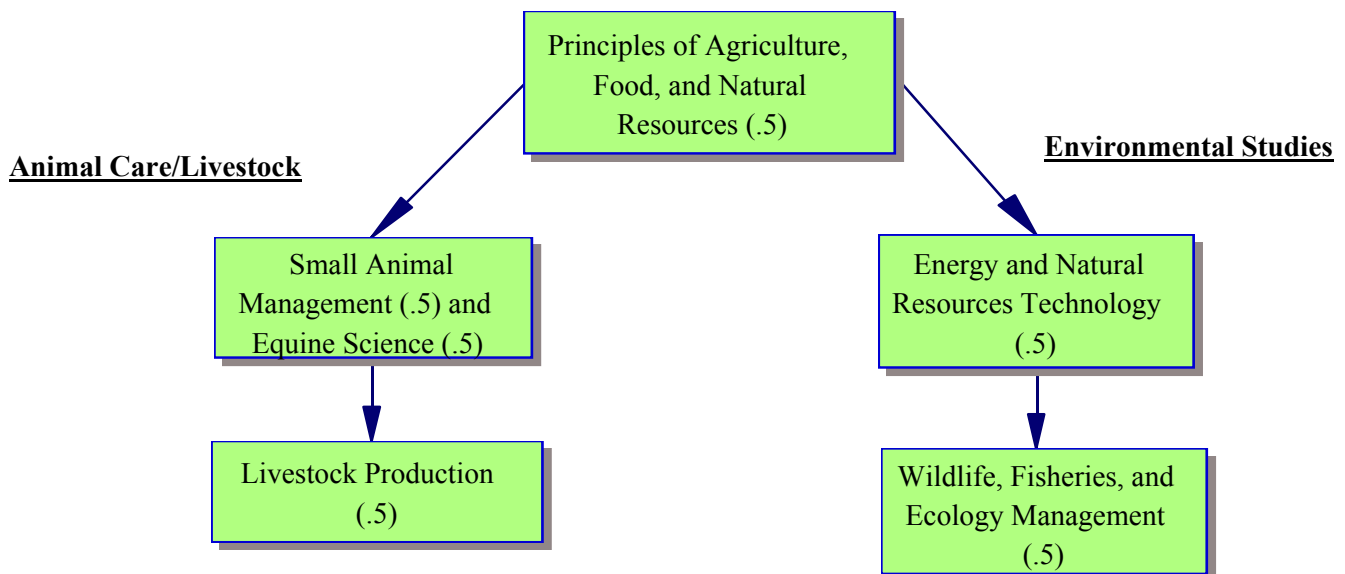*Agriculture, Food & Natural Resources*

The Agriculture, Food, and Natural Resources pathway focuses on careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services. Students who follow this pathway will have the opportunity to participate in FFA and receive certification in Private Pesticide Application.

Suggested Four Year Plan

	Grade	English/ Language Arts	Math	Science	Social Studies	Suggested Courses (* indicates graduation requirement)	Sample Occupations Relating to This Career Cluster
High School Plan	9	English I	Algebra I	Biology	World Geography	Principles of Agriculture, Food, & Natural Resources Communication Applications* P.E. or Equivalent*	• Environmental Technician • Agricultural Researcher • Landscape Technician • Soil Scientist • Plant Scientist • Agronomy • Entomology
	10	English II	Geometry	Chemistry	World History	Foreign Language I* Small Animal Management Equine Science Fine Art*	
	11	English III	Algebra II or Math Models	Physics	U.S. History	Foreign Language II* Livestock Production	**Extracurricular Activities** • Texas Future Farmers of America
	12	English IV	Algebra II (If Math Models in Grade 11) or Other State Approved Math Course	State Approved Science Course	U.S. Government and Economics	*(Energy & Natural Resources Technology and Wildlife, Fisheries, and Ecology Management may be taken in 10-12 grades)*	

Animal Care/Livestock

Environmental Studies

Principles of Agriculture, Food, and Natural Resources (.5)

Small Animal Management (.5) and Equine Science (.5)

Energy and Natural Resources Technology (.5)

Livestock Production (.5)

Wildlife, Fisheries, and Ecology Management (.5)

Career and Technical Education: Agriculture Science and Technology

Course Name	Credits	Grade Levels	Prerequisites
Agricultural Mechanics and Metal Technologies	**.5**	**10-12**	**Ag. Science Tech. _or_ Principles of Agriculture, Food & Natural Resources**
Energy & Natural Resources Technology	**.5**	**10-12**	**Ag. Science Tech. _or_ Principles of Agriculture, Food & Natural Resources**
Equine Science	**.5**	**10-12**	**Ag. Science Tech. _or_ Principles of Agriculture, Food & Natural Resources**
Livestock Production	**.5**	**10-12**	**Ag. Science Tech. _or_ Principles of Agriculture, Food & Natural Resources**
Principles of Agriculture, Food and Natural Resources	**.5**	**9-12**	**None**
Small Animal Management	**.5**	**10-12**	**Ag. Science Tech. _or_ Principles of Agriculture, Food & Natural Resources**
Wildlife Fisheries & Ecology Management	**.5**	**10-12**	**Ag. Science Tech. _or_ Principles of Agriculture, Food & Natural Resources**

Agricultural Mechanics and Metal Technologies
PEIMS: 13002200
Grade Placement: 10-12
Prerequisite: Ag Science Tech. _or_ Principles of
            Agriculture, Food & Natural Resources
Credit: .5
A course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques.

Energy and Natural Resources Technology
PEIMS: 13001100
Grade Placement: 10-12
Prerequisite: Ag Science Tech. _or_ Principles of
            Agriculture, Food & Natural Resources
Credit: .5
This course is designed to explore the interdependency of the public and natural resource systems related to energy production.

Equine Science
PEIMS: 13000500
Grade Placement: 10-12
Prerequisite: Ag Science Tech. _or_ Principles of
            Agriculture, Food & Natural Resources
Credit: .5
A course designed to develop knowledge and skills pertaining to the selection, nutrition, reproduction, health and management of horses.

Livestock Production
PEIMS: 13000300
Grade Placement: 10-12
Prerequisite: Ag Science Tech. _or_ Principles of
            Agriculture, Food & Natural Resources
Credit: .5
This course is designed to prepare for careers in the field of animal science. Animal species to be addressed in this course may include, but not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Principles of Agriculture, Food and Natural Resources
PEIMS: 13000200
Grade Placement: 9-12
Prerequisite: None
Credit: .5
This course is designed to prepare students for careers in agriculture, food, and natural resources. This is course is required for all other agriculture science classes.

Small Animal Management
PEIMS: 13000400
Grade Placement: 10-12
Prerequisite: Ag Science Tech. _or_ Principles of
            Agriculture, Food & Natural Resources
Credit: .5
This course prepares students for careers in the field of animal science, students need to enhance academic knowledge and skills, acquire knowledge and skills related to animal systems.

Wildlife Fisheries & Ecology Management
PEIMS: 13001500
Grade Placement: 10-12
Prerequisite: Ag Science Tech. _**or**_ Principles of
Agriculture, Food & Natural Resources
Credit: .5
This course examines the management of game and non-game wildlife species, fish, and aquacrops and their ecological needs as related to current agricultural practices.