



# CAREER TECHNICAL EDUCATION

## AGRICULTURE

**FFA will be an integral part of ALL agriculture classes.**  
**Suggested Course Sequencing**

### General Agriculture

#### Grade

- 9 Fundamentals of Agriculture or AgriScience or Honors Agriscience
- 10 Advanced Principles of Agriculture and/or Livestock Management
- 11 Greenhouse Management and/or Leadership Development
- 12 Agriculture Mechanics/Maint. 1 and/or Aquaculture/Hydroponics and/or Cooperative Methodology

### Horticulture

#### Grade

- 9 Fundamentals of Agriculture or Agriscience or Honors Agriscience
- 10 Exterior and Interior Landscaping and/or Aquaculture/Hydroponics
- 11 Greenhouse Management and/or Leadership Development
- 12 Horticulture Technologies and/or Cooperative Methodology

### Animal Science

#### Grade

- 9 Fundamentals of Agriculture or Agriscience or Honors Agriscience
- 10 Livestock Management and/or Horse Science
- 11 Small Animal Care and/or Leadership Development
- 12 Principles of Veterinary Science and/or Cooperative Methodology

### Landscaping

#### Grade

- 9 Fundamentals of Agriculture or Agriscience or Honors Agriscience
- 10 Greenhouse Management and/or Aquaculture/Hydroponics
- 11 Exterior and Interior Landscaping and/or Leadership Development
- 12 Turf Grass Management and/or Cooperative Methodology

### Agriculture Mechanics

#### Grade

- 9 Fundamentals of Agriculture or Agriscience or Honors Agriscience
- 10 Agricultural Mechanics and Maintenance 1 and/or Adv. Principles of Ag
- 11 Agricultural Mechanics and Maintenance 2 and/or Leadership Development
- 12 Agricultural Mechanics and Maintenance 3 and/or Cooperative Methodology

### Forestry/Wildlife

#### Grade

- 9 Fundamentals of Agriculture or Agriscience or Honors Agriscience
- 10 Aquaculture/Hydroponics or Advanced Principles of Agriculture
- 11 Wildlife Management and Recreation or Leadership Development
- 12 Forestry or Small Animal Care or Cooperative Methodology

All classes in Agriculture require a student to pass a safety test with a score of 100 and have proof of insurance before they are allowed in the shop/lab.

### ADVANCED PRINCIPLES OF AGRICULTURE (5155)

Open to grades 10, 11, and 12; 1 credit

Prerequisite: 1 credit in AgriScience or 1 credit in Fundamentals of Agriculture, with 80% mastery of competencies or teacher recommendation

Board-approved materials fee may be collected.

Builds on the fundamental skills developed in Agriscience and Fundamentals of Agriculture to allow students to be active in advanced concepts regarding plant and animal science, agriculture mechanics and leadership development.



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**Prerequisite: 1 credit in AgriScience or 1 credit in Fundamentals of Agriculture, with 80% mastery of competencies or teacher recommendation**

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## AGRISCIENCE (5171)

Open to grade 9 only

1 credit

Board-approved materials fee may be collected.

Fundamentals of Agriculture may not be taken before, with or after this course.

AgriScience consists of standards to prepare students for biology and subsequent sciences for the university bound student. The content area covers ecology, biological processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life. This course helps students understand the important role science serves as the agricultural industry advances to meet the challenges of the 21<sup>st</sup> century.

## HONORS AGRISCIENCE (5171H) (weighted class)

Open to grade 9 only

1 credit

Prerequisite: An "93" average in 8<sup>th</sup> grade science OR recommendation of the 8<sup>th</sup> grade science teacher.

AgriScience consists of standards to prepare students for biology and subsequent sciences for the university bound student. The content area covers ecology, biological processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life. This course helps students understand the important role science serves as the agricultural industry advances to meet the challenges of the 21<sup>st</sup> century.

**New Class!!!**

## AGRICULTURAL MECHANICS AND MAINTENANCE 1 (5151)

Open to grades 10 and 11

1 credit

Board-approved materials fee may be collected.

Includes standards to prepare students for operational procedures for a shop or a home environment. Students learn basic skills in areas ranging from welding and electricity to land measuring to plumbing. Students will be instructed on the FFA student organization, program of activities, basic leadership skills, and supervised agriculture experience programs.

## AGRICULTURAL MECHANICS AND MAINTENANCE 2 (5152)

Open to grades 10, 11, and 12

1 credit

Prerequisite: Agricultural Mechanics and Maintenance 1

Board-approved materials fee may be collected.

Includes basic information and laboratory activities on small engines, tractors, and agricultural equipment maintenance, repair and overhaul. Standards address competencies for electrical motors, hydraulic systems and fuel-powered engines.

## AGRICULTURAL MECHANICS AND MAINTENANCE 3 (5178)

Open to grades 11 and 12

1 credit

Prerequisite: Agriculture Mechanics and Maintenance 1 or 2, with 80% mastery of competencies or teacher recommendation

Board-approved materials fee may be collected.

Includes basic technologies of metal fabrication and agriculture structures. Also includes hot/cold metal work, and material computation, electric wiring and codes, blueprint reading and drawing and selection of appropriate materials for projects.

## AQUACULTURE/HYDROPONIC (5159/5179)

Open to grades 10, 11, and 12

1 credit

Prerequisite: Agriscience or Fundamentals of Agriculture, with 80% mastery of competencies or teacher recommendation

Board-approved materials fee may be collected.

This course focuses on standards that challenge students to plan for future food needs using advanced technologies and less space. It includes career choices, production, marketing, anatomy, and water quality and leadership skills needed for careers in agriculture. Hydroponics blend environmental and aquaculture plans for future food needs on less space.