

# AGRICULTURE & NATURAL RESOURCES INDUSTRY SECTOR



Agriculture is California's most important economic industry and careers in Agriculture and Natural Resources are many and varied. Careers range from turf management at municipal golf courses, operating avocado ranches, working as fish and game wardens to researchers in Biological Sciences. Employees in this industry might work in a lab, on a farm, ranch, dairy, orchard, greenhouse, plant nursery, or in a veterinarian office.

## Career Pathways

### IS THIS INDUSTRY A GOOD MATCH FOR YOU?

#### Are you?

- Interested in the environment
- Good at math and science
- Good with animals
- Interested in the relationship between humans, the environment and natural resources
- Interested in nursery, landscaping, and floral industry-related products

#### Do you?

- Enjoy working outdoors
- Want to protect the environment
- Like working with people
- Have a green thumb
- Prefer practical, hands-on problems and solutions

### EDUCATION LEVEL & OCCUPATIONS

#### High School Diploma

Farm Equipment Operator  
Veterinary Hospital  
Assistant Park Ranger Aide

#### Certificate and/or AA degree

Animal Lab Technician  
Plant Lab Technician  
Landscape Contractor

#### Bachelor's degree

Agriculture Mechanics Teacher  
Biotech Specialist  
Landscape Architect

# CAREER PATHWAYS



## AGRICULTURAL BUSINESS

In the Agricultural Business pathway, you learn about agricultural business operation and management. Topics include accounting, finance, economics, business organization, marketing, and sales.

### Sample occupations associated with this pathway:

- Agriculture Inspector
- Farm and Ranch Manager
- Sales Representative
- Business Controller
- Agricultural Credit Manager

## AGRICULTURAL MECHANICS

The Agricultural Mechanics pathway prepares students for careers related to the construction, operation, and maintenance of equipment used by the agriculture industry.

### Sample occupations associated with this pathway:

- Agriculture Equipment Operator
- Farm Equipment Mechanic and Service Technician
- Agricultural Engineer
- Welder
- Equipment Fabricator

## AGRISCIENCE

In the Agriscience pathway you will study agriculture, agricultural business, agricultural technologies, natural resources, and animal, plant, and soil sciences.

### Sample occupations associated with this pathway:

- Research Assistant/Associate
- Water Quality Specialist
- Plant Scientist
- Agriscience Teacher
- Entomologist

## ANIMAL SCIENCE

In the Animal Science pathway, you will learn about large, small, and specialty animals. Students explore the necessary elements, such as diet, genetics, habitat, and behavior, to create humane, ecologically, and economically sustainable animal production systems. This pathway includes the study of animal anatomy and physiology, nutrition, reproduction, genetics, health and welfare, animal production, technology, and the management and processing of animal products and by-products.

### Sample occupations associated with this pathway:

- Veterinarian Technician
- Animal Caretaker/Kennel Operator
- Animal Breeder
- Ranch Manager
- Feed Nutritionist

## FORESTRY AND NATURAL SCIENCE

The Forestry and Natural Resources pathway helps students understand the relationships between California's natural resources and the environment. Topics include energy and nutrient cycles, water resources and management, soil conservation, wildlife preservation and management, forest and fire management, and lumber production. In addition, students study the outdoor recreation industry and multiple-use management.

### Sample occupations associated with this pathway:

- Forestry Technician
- Park Ranger
- Fish Hatchery Technician
- Logging Operation Inspector
- Biological Science Technician

## ORNAMENTAL HORTICULTURE

The Ornamental Horticulture pathway prepares students for careers in the nursery, landscaping, and floral industries. Topics include plant identification, plant physiology, soil science, plant reproduction, nursery production, and floriculture, as well as landscaping design, installation, and maintenance.

### Sample occupations associated with this pathway:

- Florist/Floral Designer
- Landscape Design/Architect
- Hydroponics Grower
- Botanical Specialist
- Nursery/Greenhouse Manager

## PLANT AND SOIL SCIENCE

The Plant and Soil Science pathway covers topics such as plant classification, physiology, reproduction, plant breeding, biotechnology, and pathology. In addition, students learn about soil management, water, pests, and equipment, as well as cultural and harvest practices.

### Sample occupations associated with this pathway:

- Soil Conservationist
- Environmental Analyst
- Plant and Soil Scientist
- Crop Consultant
- Pest Control Advisor