

Exploring Agriscience

Grade 9+

1 Credit

based on *Exploring Agriscience*, 5th Edition ©2018

This course introduces students to the world of agriculture. It covers a wide range of topics, from forestry and landscaping to biotechnology and aquaculture. It helps students understand the most significant components of agriculture and the importance of agriculture to society and teaches many interesting facts about plants and animals without overloading students with details. (Although based on a middle school text, we give a high school credit for this course.)

LightUnit 1	LightUnit 2	LightUnit 3	LightUnit 4	LightUnit 5
The World of Agriculture and the History of Agriculture The World of Agriculture Science and agriculture Growing plants The animal industry Physical science in agriculture Agricultural exports and imports Distribution The History of Agriculture American agriculture King cotton The cattle industry Crop production Scientific research Changes in agriculture	Soil; Plant Structures and Uses; Pests Soil: The Origin of Life Organic soils Inorganic soils Water-deposited soil Soil deposited by wind Soil texture and soil pH Soil horizons The soil ecosystem Plant life Microorganisms Plant Structures and Their Uses Stems; Leaves; Flowers; Seeds; Roots Agricultural Pests Insects Weeds Wildlife as pests Genetic engineering	Floriculture; Nursery Production; Landscaping Floriculture International aspect National aspect Plants for florists Cut-flower production Flower arrangements Nursery Production Growing media Growing areas; Outside growing areas; Mist areas Propagation; Plant production Landscaping Designing the landscape Plant materials Phases of landscape development Interiorscaping	Fruit and Nut Production; Row Crops Fruit and Nut Production Pome fruits Apple production Stone fruits Citrus fruit Nut production Row Crops Grain crops Oil crops Fiber crops	Forest Science; Protecting the Environment; Organic Agriculture Forest Science The natural forest Forest succession The forest ecosystem Wood fiber production Tree farms Protecting the Environment Pesticides; Water Pollution; Soil Erosion Nitrate Pollution; Recycling Wetlands Organic Agriculture The production process Fertilizers Insect control Organic animal agriculture Criticisms of organic production
LightUnit 6	LightUnit 7	LightUnit 8	LightUnit 9	LightUnit 10
The Livestock Industry; The Dairy Industry The Livestock Industry The meat industry The horse industry Small animals The Dairy Industry Milk production Cheese Yogurt	The Poultry Industry; Aquaculture The Poultry Industry The broiler industry The layer industry Turkey production Other poultry The Science of Aquaculture Catfish production Cool-water fish Growing crustaceans Ornamental fish	Urban Agriculture; Companion Animals; Preserving Our Food Supply Urban Agriculture The rising popularity of urban agriculture Urban challenges; Urban resources Features of the urban garden Food forests; Livestock in the city Community gardens; School gardens Companion Animals Health benefits; Service animals Diseases and afflictions Industry; Health care Responsible ownership Preserving Our Food Supply Methods of Preserving Foods; Food Safety	Ethical Treatment of Animals; Hand Tools; Small Engines The Ethical Treatment of Animals Animal welfare; Animal rights activists Selecting and Using Hand Tools Simple machines; Woodworking tools; Measuring and marking tools Small Engine Operation Small engine safety Operating principles of small engines The four-stroke cycle engine The two-stroke cycle engine Comparing four- and two-stroke cycle engines Diesel engines; Engine systems	Biofuels; Biotechnology: The Future of Agriculture; Agricultural Careers Biofuels Ethanol; Biodiesel; Biomass; Methane Concerns Biotechnology: The Future of Agriculture Biotechnology Careers in agriscience Careers in Agricultural Science Plant science Animal science Food science Natural resources Agricultural research