

Agriculture Science

Designed for learners in Grades 9-12



Course Description:

This cross-cutting 15-hour course focuses on Agriculture, Food, and Natural Resources. Students will engage in hands-on activities related to soil science, plant biology, irrigation, pest control, sustainability, agroforestry, land management, and distribution. The course aims to provide a comprehensive understanding of modern agricultural practices and the importance of sustainable farming.

Track: Hydroponics

Equipment, Curriculum, and Training Available:

- Soil pH Test Kits
- Plant Samples and Dissection Kits
- Model Irrigation Supplies
- 15 Lesson Hours Curriculum and supporting materials
- Ongoing product and curriculum support
- Professional development Facilitation by a trained STEM instructor (optional)

Lesson	Learning Target Examples
Introduction to Agriculture Science	Understand the basics of agriculture science and its importance.
Soil Science Basics	Learn about different types of soil and their properties.
Plant Biology	Study the structure and function of plants.
Irrigation Systems	Understand the principles of irrigation and build a simple model.
Pest Control Methods	Learn about different pest control methods and their applications.
Sustainable Agriculture	Explore practices that promote sustainability in agriculture.
Agroforestry Techniques	Understand the integration of trees and shrubs into agricultural systems.
Land Management	Learn about effective land management practices.
Distribution of Produce	Study the process of distributing agricultural products.
Soil pH Testing	Conduct soil pH tests and analyze the results.
Plant Dissection	Dissect plant samples to study their anatomy.
Advanced Irrigation Models	Build and test advanced irrigation models.
Integrated Pest Management	Learn about integrated pest management strategies.
Sustainable Practices Project	Develop a project focused on sustainable agricultural practices.
Course Showcase	Present and discuss individual and group projects.