

TRUE NORTH FIELD STUDIES

Desert Roots: Growing Food & Faith Where We Live

Curriculum Submission Overview

Program Description

The Desert Roots: Growing Food & Faith Where We Live lab is a structured, instructor-led educational program designed to integrate life science, environmental science, and applied mathematics through hands-on, garden-based learning. Students engage in guided instruction focused on plant systems, ecosystems, resource management, and basic nutrition concepts.

The program incorporates observational learning, measurement, and real-world application of scientific concepts within a supervised instructional setting.

Grade Level

Kindergarten – 8th Grade
(Instruction is differentiated by age and ability)

Subject Areas

- Life Science
 - Earth & Environmental Science
 - Mathematics (measurement, ratios, and applied problem-solving)
 - Health & Nutrition
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Instructional Format

Instruction is delivered through a combination of:

- Direct teaching

- Guided hands-on activities
- Small group learning
- Instructor-led discussion and reflection

Students participate in structured learning segments focused on foundational scientific concepts, ecosystem interactions, and practical application.

Program Duration

- Total Instruction Time: 4 hours
 - Format: In-person, instructor-led
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Learning Objectives

Students will:

- Demonstrate understanding of basic plant structure and function
 - Identify key components of soil and plant growth requirements
 - Explain relationships between sunlight, water, and plant development
 - Recognize the role of organisms within an ecosystem
 - Apply measurement and quantitative reasoning in real-world contexts
 - Develop foundational knowledge of nutrition and food systems
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Assessment Methods

Student learning is assessed through:

- Instructor observation during activities
 - Participation in guided instruction
 - Verbal responses and discussion
 - Informal performance-based tasks
 - Student reflection (written or verbal, age-appropriate)
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Standards Alignment (Arizona)

This program aligns with Arizona Academic Standards, including:

Science (K–8):

- Life Science: Plant structure, growth, and survival
- Ecosystems: Interactions between organisms and environment
- Energy Flow: Photosynthesis and resource use
- Earth Systems: Natural resource awareness

Mathematics (K–8):

- Measurement and data application
- Ratios and proportional reasoning (upper grades)
- Real-world problem solving

(Detailed standards alignment available upon request.)

Materials

All instructional materials, tools, and supplies are provided by the instructor. No additional materials are required from families.

Instructor Qualifications

Instruction is provided by True North Field Studies, specializing in hands-on, outdoor, and experiential learning programs designed for homeschool students.

Additional Notes

This program is educational in nature and designed to supplement core science and mathematics learning through applied, real-world experiences.

Detailed lesson plans, instructional materials, and proprietary activities are provided exclusively during instruction.