



4Roots Farm Campus-Field Trip Programs

Intro to 4Roots: Exploring the Principles of 4Roots

Program Objectives:

Suggested
Grades:
All

- Explore Florida grown agriculture commodities
- Identify and describe the stages of the food chain cycle—from production to consumption—and analyze how each stage contributes to food waste
- Explore the stages of a plant's life cycle, from seed to mature plant
- Learn the step-by-step process of planting seeds, including soil preparation, seed placement, watering.
- Tour and explore the 4Roots Farm Campus

Roots & Shoots: Exploring Plant Basics

Program Objectives:

Suggested
Grades:
K-5th

- Identify the essential requirements for plant growth (sunlight, water, air, soil, space and nutrients)
- Use senses to experience and describe plants (touch textures, smell fragrances, see shapes/colors, and hear environmental sounds)
- Learn the step-by-step process of planting seeds, including soil preparation, seed placement, watering, and monitoring.
- Explore the 4Roots Farm Campus to learn about edible plants and how they are grown

Get the Scoop: Exploring Soil Science

Program Objectives:

Suggested
Grades:
K-5th

- Identify primary components of soil
- Observe and classify different soil types (sand, silt, clay, loam) based on texture and particle size.
- Identify and describe the major soil horizons in a soil profile.
- Examine the advantages and challenges of using hydroponics as a sustainable alternative to traditional soil-based agriculture.
- Identify common organisms found in, on, and above the soil and their roles in maintaining soil health.

Pollination Station: Exploring Pollinators and their Habitats

Program Objectives:

Suggested
Grades:
2nd-5th

- Explain the importance of pollination in ecosystems and its role in food production.
- Identify the key parts of a flower and their roles in pollination.
- Understand the co-evolution of plants and their specific pollinators.
- Observe and identify different pollinators in action and the plants they visit.

Hydroponic Heroes: An Exploration of Ag Innovations

Program Objectives:

Suggested
Grades:
Middle/High

- Engage students in discussions on the role of alternative farming methods in addressing global food security and climate change.
- Provide hands-on experience with hydroponics, aquaponics, vertical farming, and other innovative agricultural techniques.
- Introduce students to coding and automation systems used in precision agriculture
- Educate students on challenges faced by traditional agriculture, such as resource depletion, population growth, and climate change.
- Highlight how innovative approaches can provide solutions to these challenges.

Sprout to Spoon: Exploring Nutrition at the Root

Program Objectives:

Suggested
Grades:
High

- Understand soil nutrition and identify plant nutrient deficiencies.
- Explore sustainable growing methods like hydroponics and aquaponics.
- Design a seasonal garden and create a farm-to-table menu.
- Explore balanced diets and the fundamentals of healthy living
- Prepare a nutritionally balanced dish using fresh, seasonal ingredients.