



## Homeschool Farm Science Spring 2019

Themes: Nutrition  
(Soil → Plant → Human)

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### Friend or Foe?

*Wednesday, May 8 (Single Session)*

The farm is teeming with life--some organisms are friends of farmers, and others do a great deal of damage to crops. In this class, we'll explore the intricate relationships between pests, beneficials, and the crops they impact. We'll also learn how to promote beneficials and several Integrated Pest Management approaches employed by organic farmers.

#### LEARNING OBJECTIVES:

- Students will compare and contrast beneficials and pests on the farm and what organic farmers can do to control pests and encourage beneficials to keep their crops healthy, including Integrated Pest Management (IPM)
- Students will identify key symbiotic relationships that occur naturally on the farm, like aphids/ladybugs, pollinators/flowers, predator/prey.
- Students will be able to determine how their behavior can affect their local ecosystem when it comes to supporting beneficial animals and discouraging pests

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### Zooming in on Decomposition

*Wednesday, May 15 (Single Session)*

There is a whole ecosystem involved in decomposing an apple core. In this class, we'll zoom in to take a closer look at the web of energy involved in breaking down organic matter and figure out where that energy goes. Students will also leave knowing how to build their own worm bin at home to watch their own food scraps decompose. This is a follow-up lesson to the one offered in Fall 2018 but it is not required to have participated in the previous class.

#### LEARNING OBJECTIVES:

- Students will learn about the ecosystem that exists within a healthy compost pile

- Students will understand the key role that organisms play in decomposing organic matter
  - Students will learn the basics of how to build a worm bin
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### Nutrients in the Soil

*Wednesday, May 22 (Week 1 of 4)*

We're always told that fruits and vegetables are good for us, but have you ever wondered why? In this class we'll investigate how all of those nutrients got into our fruits and vegetables and will make connections between healthy soil, healthy plants, and healthy people. Student scientists will conduct their own experiments to determine how nutrients added to the soil affect plants and how those, in turn, affect us.

#### LEARNING OBJECTIVES:

- Students will be able to create connections between the nutrition in our soil, the plants we grow and our bodies
- Students will conduct investigations around soil nutrients and plant growth

### What's in a Watershed?

*Wednesday, May 29 (Week 2 of 4)*

In this class, we'll follow a single water drop along the water cycle as it moves through the local watershed. Beyond exploring where their water comes from and goes to, students will learn about human impacts to the water in their own backyard and ways to keep it safe for all of the organisms who rely on it. This is a follow-up to the lesson to the one offered in Fall 2018 but it is not required to have participated in the previous class.

#### LEARNING OBJECTIVES:

- Students will understand the story of where their water comes from and where it goes
- Students will consider their own impact in maintaining a healthy watershed
- Students will understand the importance of plants and permeable surfaces within the watershed

### Focus on Nutrition

*Wednesday, June 5 (Week 3 of 4)*

This class focuses on empowering students to make their own choices when it comes to what they snack on. We will compare and contrast organic and conventional foods that we might find in the grocery store and focus on making nutritious choices to nourish our bodies. This class will also involve a cooking project.

#### LEARNING OBJECTIVES:

- Students will compare and contrast the impacts of organic and conventional food on its journey from seed to table
- Students will familiarize themselves with foods they might see in the grocery store and be informed to make their own healthy choices

### 6 Plant Parts

*Wednesday, June 12 (Week 4 of 4)*

In this class, we'll take a closer look at plant anatomy and function by focusing on 6 main plant parts, from roots to fruits. The class will also involve a cooking challenge to incorporate all six plant parts in a recipe and will help students develop observational skills to be able to recognize these plant parts in the grocery store.

#### LEARNING OBJECTIVES:

- Students will identify plant anatomy and function through 6 main plant parts
- Students will taste food from the farm and engage in a cooking project