YOUNG SCIENTIST PROGRAM



Rodale Institute's educational programming provides valuable hands-on learning by engaging students in standards based experiences across the K-12 curriculum. The program is designed as 1.5 to 2-hour educational field trips focused on topics of relevance to our current food system and its impact on the environment.

Students learn from Rodale's expert guides about how environmental issues related to food production, soil health and water quality impact their every day life. All activities included in the program are designed to meet the needs of the individual group, connect informal learning with content standards and link concepts across science, math, history, geography, culture and languages.

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Science in the Field

Recommended for grades 5-12

Summary

A farm is a living laboratory where chemical and biological processes take place to build or disintegrate life. This field trip shows students the steps nature takes to place food on our tables and preserve life on earth. Students understand the importance of protecting the environment by using microbiology as opposed to chemical approaches to farming methods. Hands-on activities including microscope work increase students' abilities to identify various forms of life in the soil.

Standards addressed

Science and Technology

3.3. Biological Sciences: 3.3.7.A, B, C and D; 3.3.12.A
3.5. Earth Sciences: 3.5.10.D
3.8. Science, Technology and Human Endeavors: 3.8.7.A, B and C; 3.8.10.A and C; 3.8.12.A

Environment and Ecology

4.2. Renewable and Nonrenewable Resources: 4.2.7.A, C and D; 4.2.10.A, C and D; 4.2.12.A, B and D
4.3. Environmental Health: 4.3.7.A, B and C; 4.3.10.A, B and C; 4.3.12.A and C
4.4. Agriculture and Society: 4.4.7.A and B; 4.4.10.B; 4.4.12.B
4.8. Humans and the Environment: 4.8.7.C; 4.8.10.C; 4.8.12.A

Honeybee and the Apple Tree

Recommended for grades K-7

Summary

Honeybees and other pollinators are responsible for one out of every three bites of food we eat, yet U.S. honeybee colonies are declining at an annual rate of 30% or more. This field trip will help students understand the importance of balance in our ecosystems and how humans, insects, plants and other animals all depend on each other for survival. The Rodale Institute Honeybee Conservancy will be used as the main learning laboratory and students will work with the demonstration hives to learn basic beekeeping skills.

Standards addressed

Environment and Ecology

4.3. Environmental Health: 4.3.4. A, B and C; 4.3.7.A, B and C
4.4. Agriculture and Society: 4.4.4. A and B; 4.4.7.A and C
4.5. Integrated Pest Management: 4.5.4.B and C; 4.5.7.A, B and C
4.6. Ecosystems and their Interactions: 4.6.4. A; 4.6.7.A and C
4.7. Threatened, Endangered and Extinct Species: 4.7.4. A, B and C; 4.7.7.A, B and C
4.8. Humans and the Environment: 4.8.4.C; 4.8.7.C

Around the World in Your Garden

Recommended for grades K-6

Summary

We rarely consider the origin and diversity of the plants in our gardens, but each has a long and fascinating story to tell. A field trip to our International Garden will provide students with a window into the past, allowing them to learn how plants have changed and evolved to survive and thrive. Students will also learn how plants received their names and will take home a list with the Latin and common names of all the plants in the International Garden.

Standards addressed

Environment and Ecology

4.4. Agriculture and Society: 4.4.4.A and C; 4.4.7.A and C
4.8. Humans and the Environment: 4.8.4.A, B and C; 4.8.7.A, B and C

Geography

7.2 The Physical Characteristics of Places and Regions: 7.2.3.A; 7.2.6.A
7.4 The Interactions between People and Places: 7.4.3.A and B; 7.4.6.B

Wetlands: Nature's Water Filters

Recommended for grades 4-7

Summary

The Wetlands field trip provides elementary and middle-school students with an understanding of perhaps our most important natural resource - water. Watersheds, the hydrologic cycle and the value of clean fresh water are all discussed along with an overview of how water resources are managed on the Rodale Institute farm.

Standards addressed

Environment and Ecology

4.1. Watersheds and Wetlands: 4.1.4.A, D and E; 4.1.7.B, C and D
4.8. Humans and the Environment: 4.8.4.C and D; 4.8.7.A, B, C and D
4.9. Environmental Laws and Regulations: 4.9.4.A and B; 4.9.7.A and B