

Agriculture in the Classroom: The Basics

Agricultural concepts have real-world connections to students. Teaching about agriculture can provide opportunities for students gain new knowledge and develop important skills.

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Use the [Curriculum Matrix](#) as a resource for teaching agricultural concepts. You can find over 400 lessons on the Curriculum Matrix. The Matrix is a keyword-searchable database that provides pre-K-12 educators with lesson plans and companion resources that connect agriculture to academic content. The lesson plans are standards-based and help students see the importance of agriculture in daily life.

*Tips

- Search the Matrix by keyword or filter results using the Advanced Search option. For a list of agricultural terms, download a spreadsheet of the Matrix vocabulary.
- Lessons can be scaled up or down depending on the needs of your students.
- Feel free to use an entire lesson or only portions of a lesson.

A good entry point to teaching about agriculture is to choose lessons relevant to the students' lives. Help students to see how the concepts they are learning can be applied to things they engage with.

For example, you could talk about how the food they eat comes from farms, or point out agricultural connections to clothing, fuel, and more.



- Lessons on food - [A Sour Subject](#) Grades 3-5, [Before the Plate](#) Grades 9-12
- Lessons on farms - [All Kinds of Farms](#) Grades Pre-K-2, [Robots Wanted!](#) Grades 6-8
- Lessons on agricultural connections - [My Farm Web](#) Grades 3-5, [My Agricultural Connections](#) Grades 9-12

For curated lists of lessons, there are two resources: Themes for Learning and Course Topics

The themes for learning resource has topics that can be used for students of all levels and that are especially found in elementary grades.

[Themes for Learning Grades K-5](#)

The course topics has courses that you may teach at the middle school or high school levels and lists topics that are often covered in those courses.

[Course Topics Grades 6-12](#)

For example, in a biology course, you will likely cover the topic of cells and cell processes so there are lessons from the matrix that relate to that topic – [Biology: Grades 9-12](#)

Ideas for relevant hands-on learning starting where students already are: the school building:



Something that is found in and around many school buildings is fruit and veggie scraps, paper cups, leaves, twigs, and grass. Collect and use those items that students interact with on a daily basis and learn about composting – Lesson on composting - [The Rotten Truth](#), Grades 3-5

This lesson takes it a step further and introduces worms for vermicomposting – Lesson on vermicomposting - [Vermicomposting](#) Grades 3-5

Teaching about agriculture in non-formal environments:

These eLearning lessons were created at the height of the pandemic to provide students and families with hands-on, engaging activities in agriculture to do at home. Though many students are back in school, the activities are just as easy to replicate in other settings such as after-school programs or for engaging class activities: [eLearning](#)

Example lessons from the eLearning/hands-on learning guide:

Paper in recycling bins is usually plentiful around school buildings, this lesson combines paper and seeds for a hands-on recycled seed paper project.

[Recycled Seed Paper](#)

Many students see the produce on their plates but may be less familiar with seeing the early stages of how food grows. This lesson uses clear, plastic gloves for them to see how plants begin to grow.

[Farming in a Glove](#), (entire lesson from the Matrix) [Farming in a Glove](#), Grades K-2

A similar lesson involving sandwich baggies: [My Little Seed House and Seed Book](#) Grades K-2

Virtual Fieldtrips:

Virtual field trips are a great way for students to learn about different places and topics without having to leave the classroom. They can be used to supplement traditional learning methods or to provide students with a unique learning experience that they would not otherwise be able to have.

New York Agriculture in the Classroom Virtual Field Trips: [Virtual Field Trips](#)

National Agriculture in the Classroom Virtual Field Trips: [Virtual Tours](#)

Additional resources:

Free Online Agriculture Games

[Ag Games](#)

[My Little Ag Me | Social Science Learning Game \(myamericanfarm.org\)](#)

Apps in the Classroom

[Apps in the Classroom](#)

Agricultural Career Exploration

[Career Seeker](#)