



TEACHER'S TOOLKIT

take a virtual trip to the pennsylvania farm show!

Provided by:



pennsylvania
DEPARTMENT OF AGRICULTURE



pennsylvania
DEPARTMENT OF EDUCATION

INTRODUCTION

The Pennsylvania Departments of Agriculture and Education are pleased to offer agriculture education and STEM curriculum as part of the virtual 2021 Pennsylvania Farm Show.

Our theme this year, *Cultivating Tomorrow*, is a nod to education's role in helping students understand where their food comes from and to consider a career in the agriculture and food production industry.

The virtual Farm Show offers daily STEM demonstrations and activities that can be done at home by K-12 students. Lessons include how to make butter, plant-based plastics made from hemp and other sustainable materials, and more.

Virtual hands-on activities will include [Plants to the Rescue](#) and Plant Hunt, digital lessons for grades 6-8 provided by [Seed Your Future](#) career initiative, in partnership with Scholastic, Inc., including lessons titled Water Filtration, Grow Plants from Food Scraps, Tie Dye with Plants, DIY Home Hydroponics, and Phototropism: Light Maze.

Throughout the show, elementary and early secondary students can become AgExplorers by visiting virtual stations at farmshow.pa.gov to learn about raising goats, sheep, rabbits, dairy, pork, and beef; organic agriculture, the environment, hardwoods, bees and honey, apple production, maple syrup, mushrooms, 4-H, plastic recycling, dog licensing and Christmas trees. Students visit each station, then take a quiz, which they can submit to enter a drawing for a Farm Show prize package.

For older students and adult learners, each day will include live webinars on business, technological, scientific and environmental challenges facing the industry, led by influential policy makers and experts in each topic, including solar energy, food security, pest control, emerging markets, sustainability, biosecurity and more.

We hope you will incorporate the 2021 Farm Show into your virtual lesson plans in January.

VIRTUAL LEARNING OPPORTUNITIES

Fun with Plants

These fun home activities, brought to you by Seed Your Future, bring the exciting world of plants into your virtual classroom. You can share the quick video tutorial with your class and share the written instructions for a fun, home learning experience.

Explore Natural Dying with Vegetables

Use vegetables – like beets, parsley, spinach, carrot, and red cabbage – to create tie-dyed clothing.

LINKS: [The Video](#) | [The Instructions](#)

Grow New Vegetables with Food Scraps

Grow your own vegetables with the scraps left over from cooking!

LINKS: [The Video](#) | [The Instructions](#)

Create a Plant Maze using Phototropism

See phototropism – the movement of a plant in response to light – in action with a DIY plant maze!

LINKS: [The Video](#) | [The Instructions](#)

Growing Plants with Hydroponics

Grow plants with no soil! Make a hydroponic planter and see plants thrive.

LINKS: [The Video](#) | [The Instructions](#)

Plants to the Rescue!

An online learning module brought to you through a partnership with Seed Your Future and Scholastic. Geared towards middle schoolers, Plants to the Rescue features a myriad of digital learning opportunities including videos on the history of plants, trivia and games, and a dissection tool to teach key elements and functions of plants.

LINK: [Plants to the Rescue, Science and ELA Lessons and Activities](#)

Plant Hunt

Plants can be found in many of the objects we encounter every day. They aren't just trees and flowers outside, they are the chairs we sit on and the clothes we wear. Send your students on a plant hunt inside their home!

LINK: [Plant Hunt Checklist](#)

Become an Ag Explorer!

Elementary and early secondary students can become Ag Explorers by visiting virtual stations hosted on our website at farmshow.pa.gov. They'll learn about raising goats, sheep, rabbits, dairy cows, pork, and beef; organic agriculture, the environment, hardwoods, bees and honey, apple production, maple syrup, mushrooms, 4-H, plastic recycling, dog licensing, and Christmas trees! Students visit each virtual station, then take a quiz, which they can submit to enter a drawing for a Farm Show prize package for 2022!

LINK: Look for the blue Ag Explorer button on [this page](#) after January 8, 2021.

Career Exploration

On Monday, January 11 at 11 AM, the Department of Agriculture is hosting a live panel discussion geared towards high school students that will feature a variety of experts in the most in-demand agricultural careers including a large-animal veterinarian, farm manager, chef, hydroponic specialist, horticulturist, and a service technician for computerized farm equipment. They'll discuss their experiences and career trajectories, and the training that led them to where they are today.

A link to the livestreamed panel discussion will be posted on the [schedule for Monday, January 11](#). If you'd prefer flexibility with scheduled, a recording of the discussion will be available on the [Department of Agriculture's YouTube page](#) on Tuesday, January 12, 2021.

A Career Exploration webpage will also be available at farmshow.pa.gov under [Participate Virtually](#), just look for the blue *Career Exploration* button. This subsite is one you can encourage students to peruse on their own time with links to information about ag education program such as the Pennsylvania FFA and 4-H, job shadowing opportunities, and other ways to be immersed in agriculture.

QUESTIONS?

If you have questions on these virtual learning opportunities or are interested in additional agriculture education opportunities, please contact Katie McLaughlin at katmclaugh@pa.gov.