KINDERGARTEN, 1ST, & 2ND GRADE

DUAL-USE DESIGN CHALLENGE

CAN SOLAR PANELS AND FARMS WORK TOGETHER?

The Challenge

Imagine you are a **farmer**! Farmers need land to grow food, and solar panels need land to make electricity. But what if they could **share the same space**?

Your challenge is to design a farm that **uses solar panels *and* grows food and/or raises animals at the *same time***.

Grounding Phenomenon

In the past, people didn't know that farms and solar panels **can** work together. But farmers today are figuring out how to **grow** food and **harvest** energy from the sun. In some places, animals like sheep **graze under solar panels**, and some crops **grow in the shade of the panels**. Your job is to **find a way for farming and solar energy to work together**!

Essential Questions

- What do **plants and animals** need to grow and stay healthy?
- How do **solar panels work**, and why do they need sunlight?
- How can we design a farm where both **plants (or animals) and solar panels** get what they need?

Your Task

- **Think** about how farmers use the land.
- **Draw, build, or create a model** of your idea! You can use paper, blocks, clay, or anything else to show your design.
- **Explain** how your design works. How do the shape and placement of the solar panels help the farm?

Helpful Tips

- Look at pictures or videos of farms and solar panels working together.
- Think about what **happens under trees**—some plants grow better in shade!
- Ask: **How can my design help plants, animals, and people?**

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This challenge is open to all types of students—whether in classrooms, STEM clubs, FFA chapters, homeschool programs, or independent projects. With grade-specific categories and tailored guidance, students of all ages can participate at a level that fits their abilities as an individual or on a team.

Are you ready to be a next generation farmer? Let's build the future!

Submit your project at https://solarfarmsummit.com/student-design-challenge

Competing entries due June 11
Showcase only entries due July 21

Showcase and Awards August 7 at the 2025 Solar Farm Summit

A Collaboration Between

The Solar Farm Summit is America's agrivoltaics conference and farming + solar exhibition, bringing together experts, farmers, researchers, and innovators to explore the future of agriculture and energy. Finalists in the Dual-Use Design Challenge will have the opportunity to showcase their projects at the 2025 Solar Farm Summit, win cash prizes, and receive public recognition as well as direct introduction to industry leaders and professionals on the cutting edge of agrivoltaics during the industry's most collaborative and constructive event.

The InSPIRE project (**In**novative **S**olar **P**ractices **I**ntegrated with **R**ural **E**conomies and **E**cosystems) is the nation's longest running and largest agrivoltaics research initiative. InSPIRE explores how solar energy can be co-developed with agriculture and native landscapes, conducting field research, providing data-driven insights, and convening experts across disciplines. By advancing our understanding of agrivoltaics and other dual-use solutions, InSPIRE supports the scaling of solar projects that benefit both landowners and ecosystems.

*If you would like to join us at the **2025 Solar Farm Summit in Chicago, IL August 4-7**, please visit https://solarfarmsummit.com or reach out to admin@solarfarmsummit.com.*