



Bringing STEM to life through real-world topics and hands-on learning

No matter what kids want to do when they grow up, building STEM skills through hands-on learning helps grow confidence and develop essential competencies like problem solving, leadership and analytical thinking. That's why we created National Youth Science Day (NYSD), which makes hands-on STEM easy, fun and accessible—whether you're an educator or a kid.

National Youth Science Day & computer science

NYSD is 4-H's annual initiative to bring kids everywhere access to high quality hands-on STEM learning. In 2018 and 2019, we're focusing on the critically important topic of computer science (CS). This year, we teamed up with

experts from Google and West Virginia University to design a hands-on CS challenge called *Code Your World*: a turn-key gateway activity that gets kids and educators excited and confident about CS—no prior experience necessary.

Here's how it works:



July-September:
Order kits & plan
NYSD events



October 1:
Join the digital rally for
STEM and CS education
using #4HNYSD



October 1 - 31:
Host NYSD events and
share photos & stories
using #4HNYSD



November & beyond:
Re-use your NYSD kits
all year long





Code Your World is built around the theme of using code as both a form of personal expression and a lens for understanding the world around you, integrating Google’s proven CS First program with 4-H’s research-based youth development model. The result is four engaging activities—one computer-based and three unplugged—that teach CS skills through fun topics like digital animation, artificial intelligence and dance.



Animate a Name (computer-based): animate a nickname, name of a favorite team, place, family member or anything else, using CS First and Scratch.



Code Your Dance (unplugged): use the power of dance to learn concepts like algorithms, loops and conditionals.



Color Your World (unplugged): color and create maps to learn about graph theory, patterns and algorithms.



Artificial Intelligence (unplugged): use dice and coins to create artificially intelligent game players and learn about AI, random number generators, probability and algorithms.

More about *Code Your World*

- Internet access optional, not required
- Perfect for classroom, after school, club or in-home use
- Minimal prep time, cleanup or tech requirements
- Easily adaptable to space, time and technology constraints
- Perfect for new or beginner coders ages 8-14
- No CS or coding skills required to facilitate or participate
- Hands-on, fun and interactive
- Builds confidence in both kids and facilitators

For more information:



University of California
Agriculture and Natural Resources

