



# Illinois 4-H | Spark Ideas. Ignite Possibilities.

Are you into computers and technology? Do you have an interest in Video Games or Apps? Have you ever wondered where to get started? Discover the basic elements of programming within Scratch, Google CS First, and other visual Programming Language (VPL) environments. Learn fundamental concepts about sequence, iteration, conditionals, variables, modularization, and interfacing with external hardware. This project will guide you through the basics of making your first real program!



## Exploring 4-H Computer Science Visual-Based Spark Activity: Animate a Name

Go to: [go.illinois.edu/VBCS](http://go.illinois.edu/VBCS) for a 1-hour Spark activity called Animate a Name. Using Google's CS First Platform and Scratch you will design, code, and animate your name (or other word) like the popular Google Doodles that appear on Google's homepage daily.

ILLINOIS 4-H  
COMPUTER SCIENCE



Open your phone's camera app, scan the QR code, and follow the link!



ILLINOIS 4-H STEM TEAM  
YOUTUBE CHANNEL



## 4-H Project Levels and Goals

### Beginner

- Create a simple program using Scratch (or other simple graphic programming language); include 8 different commands including looping and getting input from the keyboard and mouse

### Intermediate

- Create a program using Scratch (or other simple graphic programming) that has been downloaded from the internet and modified
- Demonstrate the changes made to the original program
- Create an animated storybook using Scratch (or other GPL)

### Advanced

- Create a video game in Scratch (or other simple graphic programming)

## Put Your Project Into Action

### Show Your Skills

- Learn to create simple programs using Scratch and other block based programming languages
- Create story books and other storytelling programs using Scratch
- Create a video game capable of being played and modified on Scratch

### Service and Leadership

- Join a State-Wide Youth Planning and Operating Committee
- Participate in one of the many nation/statewide opportunities available to 4-H Youth
- Volunteer as a teen teacher to teach computer literacy skills to community members

### Entrepreneurship

- Start a website design business
- Develop an app for distribution on the App Store and Play Store

### Technology Connection

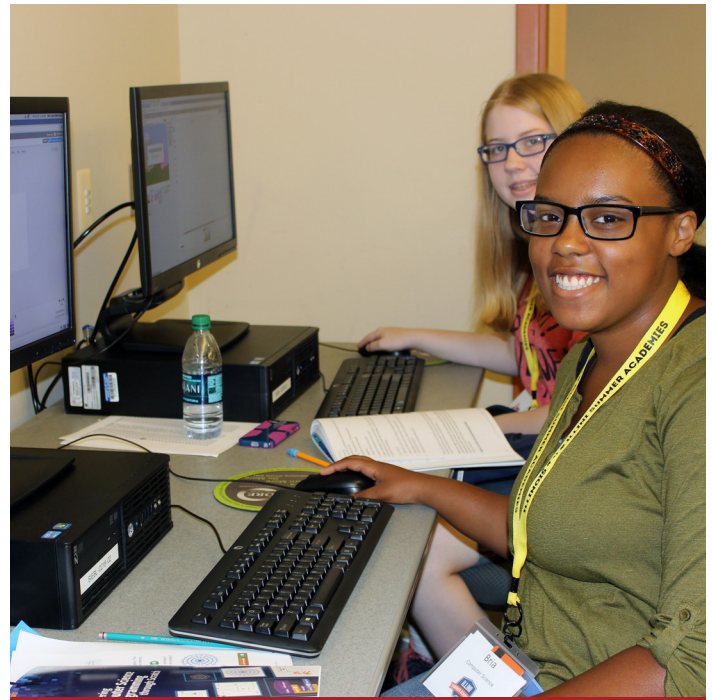
- Artificial Intelligence
- Drones
- 3-D printing
- Robotics
- Advanced computing
- Internet of Things

### Connecting with a Mentor

- Contact your local Extension Office to find potential content-specific mentors in your area
- Contact local businesses and technology companies about potential internship opportunities

### Events

- Robotics competitions
- Hack-a-thons
- County and State Fair
- Google Chicago events and tours
- Exhibit in Ready-4-Life at the County/State Fair
- Participate in Maker-style challenges



### Careers related to Computer Science

STEM  
Computer Science  
Robotics

Engineering  
Analytics  
Developer

## Start a Conversation

What is Computer Science?

What is Coding? Is it the same as Hacking?

How was your favorite video game created?

How do people make simple apps for the App or Playstore?

What is Block Based or Visual Based Programming?

How do I get started?!

## Want to learn more?

[go.illinois.edu/4Hcomputersciencevisual](http://go.illinois.edu/4Hcomputersciencevisual)

## Explore more at Illinois 4-H!

[4-H.extension.illinois.edu](http://4-H.extension.illinois.edu)



**Illinois Extension**

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