CREATING AND CODING AN ANIMATION

AGES

Children 10+ years
Teens

PROGRAM DESCRIPTION

Using the free online coding program Scratch, teens create an animated cartoon featuring an animal sprite (computer graphic). Teens code instructions to populate their cartoon with words and characters. Scratch is easy to teach, even for non-coders. Suggested runtime: 90–120 minutes

MATERIALS AND PREPARATION

You will need:

- A computer lab or laptops
- A projector for the Scratch demonstration

UNIQUE SPACE AND PERSONNEL NEEDS

You will need a computer lab or a room that can be adapted into a computer lab-like space with a projector. One or two Scratch-savvy volunteers are recommended to help with troubleshooting.

Possible partnerships:

- Code Ninjas (paid introductory class teaches Scratch)
- STEM outreach librarians (check your state libraries)
- Girls Code (free downloadable coding lessons and club templates)
- Prenda Coding (paid coding resource designed for libraries)

RESOURCES

Web

Scratch: https://scratch.mit.edu/

Code Ninjas: https://www.codeninjas.com/

Start a Girls Who Code club: https://girlswhocode.com/clubs/

Free coding lessons from Girls Who Code: https://bit.ly/2LtfElv

Prenda coding: https://prendacodeclub.com/

TIP:
Ask teens who have them to bring their own laptops; have extras on hand for teens who do not.

TIP:
To run this program with children 10+ years, just add more volunteers.

TIP:
Be sure to purchase the most recent editions of Scratch reference books. Earlier versions are obsolete, as the platform continues to change.

Middle Grade Nonfiction

Coding for Kids: Scratch: Learn Coding Skills, Create 10 Fun Games, and Master Scratch (2019) by Matthew Highland

Coding Projects in Scratch: A Step-By-Step Visual Guide to Coding Your Own Animations, Games, Simulations, and More! (2019) by Jon Woodcock