CS First

Lesson Plans

Duration: 90 MIN (2-45 Min periods)

Adapted/Modified by Ashley Ufret & Thea Williams

Animate a Name Lesson Plan

Overview

Animate a Name is a one-hour lesson designed to be completed within 15-60 minutes. Students will watch a series of videos and create one coding project. This lesson can be completed online or offline, but both options require access to a computer.

Animate a Name: At-A-Glance

In this lesson students use code to bring a name to life. Using *Scratch for CS First*, a programming language that uses “blocks” to build code, they make a name come to life through animation, sound and music. It can be a nickname, the name of a favorite sports team, place, lesson or anything else kids can think of—encourage them to use their imaginations!

To explore Animate a Name, visit the Animate a Name Starter Project. If you get stuck, review the solution section of this lesson plan. Digital materials are accessible online.

Classroom kits are not available for one-hour activities.

Animate a Name: Agenda Highlights

1. Have vocabulary words in a bowl and each partnership picks 1 term. Students work in partnerships (driver/navigator) to complete the Animate a Name activity on Scratch for one of the terms and include the definition for the word in their own words.
2. Direct students to g.co/csfirst/go, login and watch the first video.
3. Students watch videos and create an "Animate a Name" project in *Scratch for CS First*.
4. When there are five minutes left in class, instruct students to find the Wrap Up page and complete the short survey.
5. Your students’ projects are automatically shared with your teacher account. Encourage students to also show their projects to a neighbor/classmate.
6. Discuss the lesson and facilitate a brief discussion about what students learned and experienced.

7. Tell me about the program you made today.
    - *What was your favorite part of this lesson?*
    - *What did you learn about computer science and coding?*
    - *What was the most challenging part of this lesson?*

CS First is aligned to the CSTA K-12 CS Standards, the K-12 CS Framework and the ISTE Standards for Students. For more information visit, g.co/csfirst/standards.

Learning Objectives

"Animate a Name" will help kids get comfortable with coding. *Scratch for CS First* uses an introductory, block-based coding language designed to get kids creating, having fun and feeling confident about coding skills quickly. With just a few blocks and clicks, make a "sprite" (character) dance, talk or come to life in endless ways. Additionally, the computer science concepts used in *Scratch for CS First* can be applied to other advanced programming languages, like Python or Java. By the end of this lesson, kids will:

- Be familiar with a block-based programming language
- Learn important computer science concepts, like events, sequencing and loops
- Create an animation project in *Scratch for CS First*

CS Topics Covered

- Control structures: Sections of code that order the direction or flow of how a program functions. Control structures include conditionals and loops.
- Debugging: The process of identifying and fixing error(s) in a program when it is not functioning as expected.

Standards

Resources/Materials:

- Power on book by Jean J. Ryoo and Jane Margolis
- Pre-planned student partnerships/groups
- Devices connected to Internet (Chromebooks, laptops, or iPads, etc.)
- Links to Google CS First assignments on Google Classroom

Add-on Solution Guide

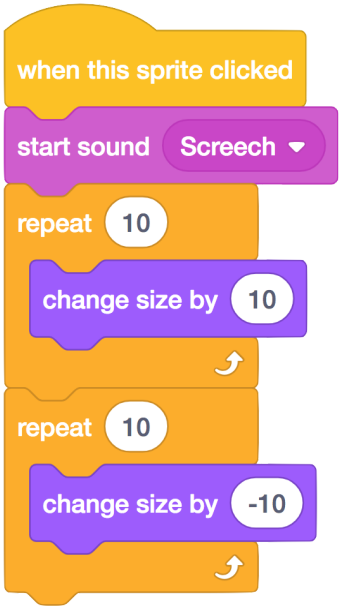
Use this guide as a reference during the lesson to see what code might look like for each add-on.

Change Color

Change the color of a letter when it's clicked.

Grow and Shrink

Change the size of a letter when it's clicked. Add a sound to match the animation.

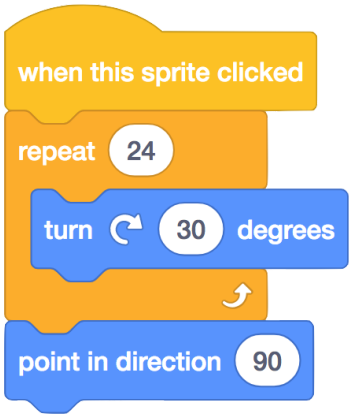


Draw a Letter

Draw a letter and add movement to bring the new letter to life. Click "choose a sprite" and select "paint" to draw and customize the new letter.

Spin

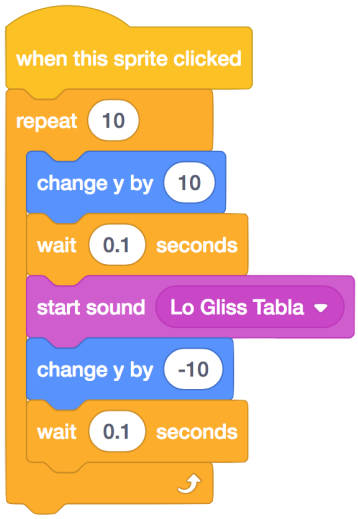
Add another letter and rotate the sprite when it's clicked.



Add-on Solution Guide - continued

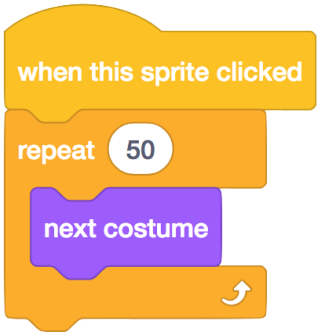
Bounce

Move the sprite up and down, and add a sound to enhance the movement.



Wave

Paint a new costume and change to different costumes.

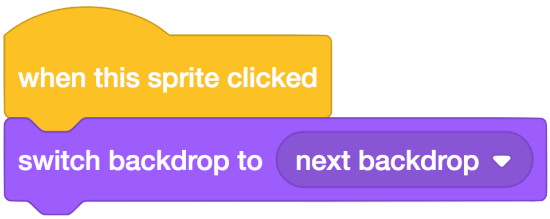


Bounce Everywhere

Move the sprite all around the stage, then make it return to a specific point.

New Scene

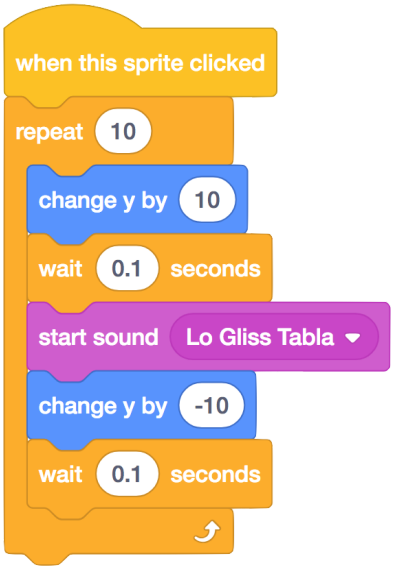
Switch to a different scene by clicking a new sprite.

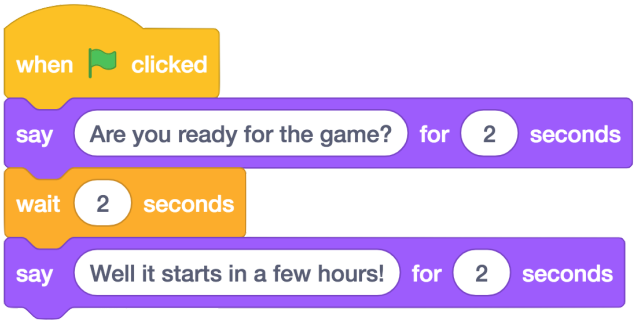


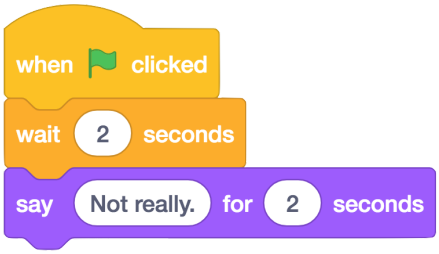
Add-on Solution Guide - continued

Say Something

Make the letters talk to each other when the green flag is clicked.

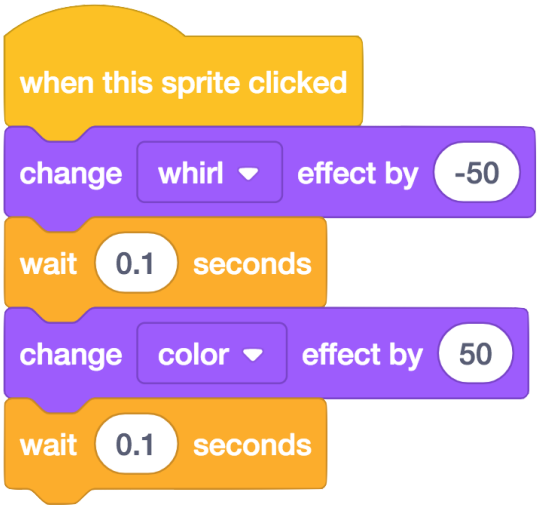






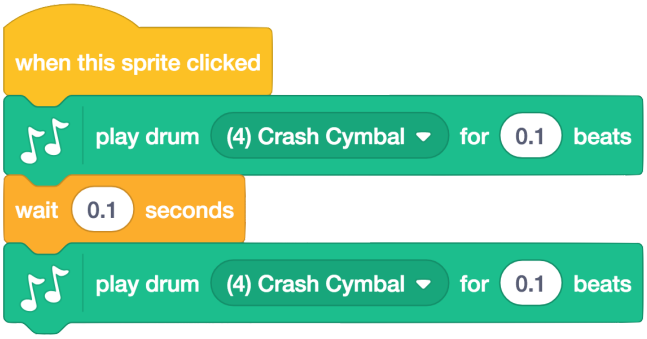
Sprite Dance

Make a sprite dance when a key is pressed.



Play Beat

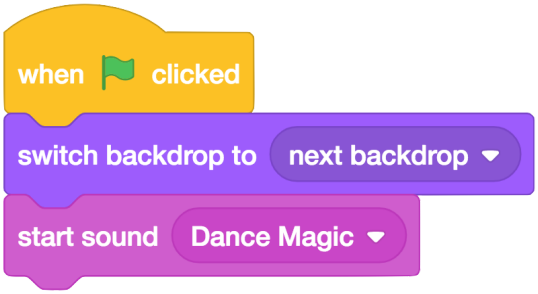
Play a drum beat when a sprite is clicked.



Add-on Solution Guide - continued

Add Background Music

When you click a sprite, play a song and change the background.



Teacher Lesson Notes

Extension Activities (Assignments)

Students can continue to animate other vocabulary words that they didn't in class, including adding the definition/meaning of the word creatively into the project (e.g., showing the meaning through an interactive scenario).