



Create Your Own Google Logo

Overview

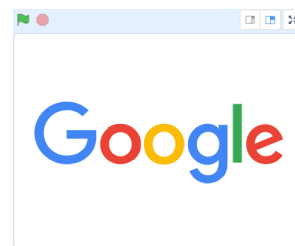
In each of the “Create your own Google logo” lessons, students code and design their own versions of the Google logo. These lessons introduce students to computer science using *Scratch for CS First*. These lessons are most appropriate for students ages 9-14 and take 15-60 minutes to run.

Create Your Own Google Logo: Agenda Highlights

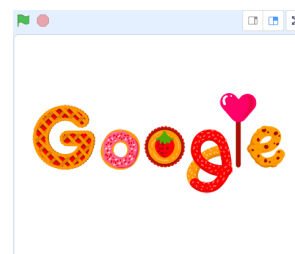
Introduction

Introduce the lesson, and present an example project (linked below for each respective logo lesson). Consider showing a few Doodles from <https://www.google.com/doodles> to help inspire your students. Using the Earth Day lesson in your science class? Students could use the lesson with NGSS Standards on natural resources, global temperatures, and biodiversity.

Original Logo Lesson: In this lesson, you will program and design your own Google logo. Google often creates special logos, called Google Doodles, to celebrate holidays and important people, places, and events. In this lesson, you will be the artist and programmer for your own special logo. You might celebrate a real or imagined holiday or even highlight your favorite hobbies and interests, like a sport or activity. [Example project](#)

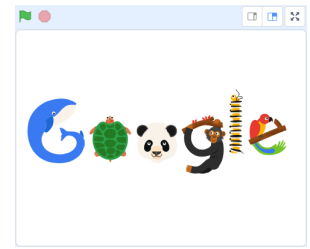


Valentine's Day: In this lesson, you will program and design your own Google logo for Valentine's Day. Valentine's Day is celebrated on February 14th, and is a great opportunity to show your appreciation for things and people you care about. In this lesson, you will be the artist and programmer for your own special Valentine's Day logo. You could make a project about something you care about. It could be about your favorite place, a thank you card, or story about a pair of best buds. [Example project](#)





Earth Day: In this lesson, you will program and design your own Google logo to celebrate Earth Day. Earth Day is celebrated around the world on April 22. It's a great time to think about the natural world and what you do to celebrate and protect it. In this lesson, you will be the artist and programmer for your own special Earth Day logo. You could make a project about your favorite place in nature and why you love it. Or create a positive message that encourages others to plant a garden, recycle or conserve energy. [Example project](#)



Scratch for CS First

You will use a programming tool called *Scratch for CS First*. When you program, or code, you provide instructions for the computer to follow. Many programmers write code in text, meaning that they type it out on the keyboard.

Scratch is a block-based coding tool developed by the Scratch Foundation in collaboration with the Lifelong Kindergarten group at the MIT Media Lab. Learn more about Scratch at scratch.mit.edu. It's ideal for beginners to learn coding. Students "snap" together blocks of commands that the computer can carry out.

Transition to computers

Direct students to log in to their accounts at g.co/csfirst/go. Instruct them to select the lesson for your class (Create Your Own Google Logo, Valentine's Day or Earth Day) and watch the first video.

1. Students watch videos and create a "Logo" project in *Scratch for CS First*.
2. When there are five minutes left in class, instruct students to find the Wrap Up page and complete the short survey.
3. Instruct students to show their project to a neighbor/classmate.
4. Discuss the lesson and facilitate a brief discussion about what students learned and experienced.
 - *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.



CS Topics Covered, Learning Objectives, and Standards

CS Topics Covered:

- **Events**
- **Sequencing**
- **Loops**

Events

CSTA Standard addressed

2-DA-09: Refine computational models based on the data they have generated.

Aligned objective

Students will refine programs by changing data and using event blocks to achieve a desired action. For example, students may change the value in a "change y by" block to move a sprite up, or add a "when sprite clicked" event to initiate an action.

Add-ons: All add-ons except Change Background and Edit, Draw, or Add Letters

Sequencing

CSTA Standard addressed

2-AP-10: Use flowcharts and/or pseudocode to address complex problems as algorithms.

Aligned objective

Students will complete complex programming tasks using block-based program flows to sequence the desired end result. For example, students may use multiple Event blocks in their program.

Add-ons: All add-ons except Change Background and Edit, Draw, or Add Letters

Loops

CSTA Standard addressed

2-AP-12: Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.

Aligned objective

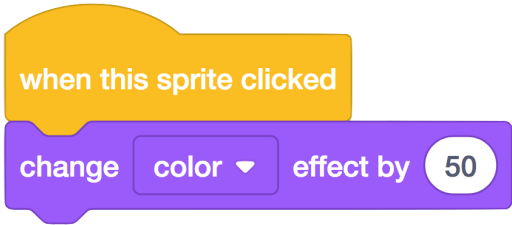
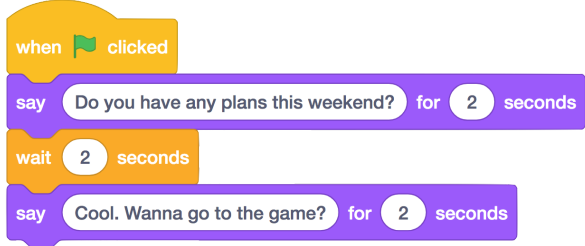
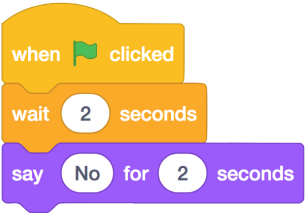
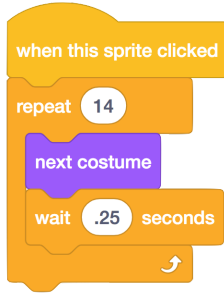
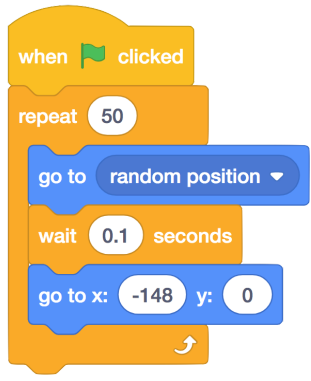
Students produce an action based on two or more conditions in a logical relationship by combining multiple Control blocks. For example, students may place "wait" blocks within "repeat" blocks, or create nested loops by placing one "repeat" block within another.

Add-ons: Bouncing Sprites, Say Something, Switch Costume, Disappearing Sprites



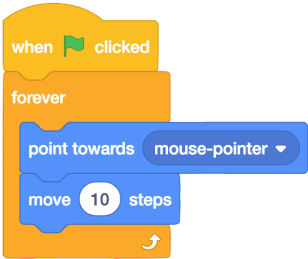

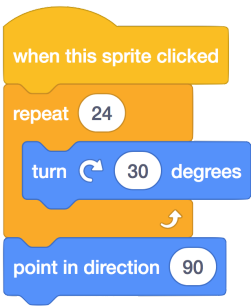
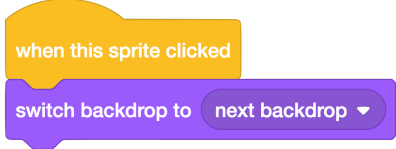
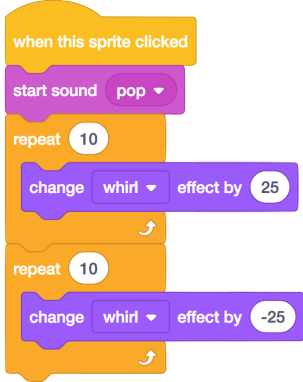
Add-on Solution Guide

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

Change Color	Say Something
<p>For any sprite:</p> 	<p>For any sprite:</p>  <p>For a different sprite:</p> 
Switch Costume	Jumble Letters
<p>For any sprite:</p> 	<p>For any sprite:</p> 

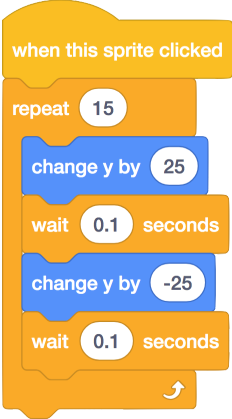
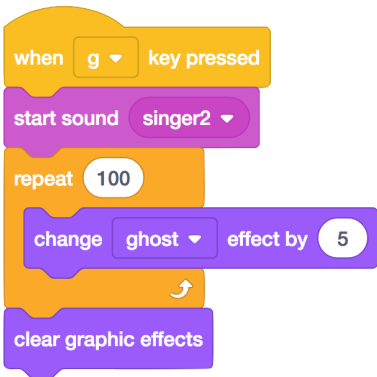


Add-on Solution Guide - continued

Chase	Spin
<p>For any sprite:</p>  	<p>For any sprite:</p> 
Change Scene	Dance Whirl
<p>For any sprite:</p> 	<p>For any sprite:</p> 



Add-on Solution Guide - continued

Bouncing Sprites	Disappearing Sprites
<p>For any sprite:</p> 	<p>For any sprite:</p> 

CS First projects are coded using Scratch, a block-based coding tool developed by the Scratch Foundation in collaboration with the Lifelong Kindergarten group at the MIT Media Lab. Learn more about Scratch at scratch.mit.edu.

CS First lesson plans are licensed under a Creative Commons Attribution - ShareAlike 4.0 International License. Scratch is developed by the Lifelong Kindergarten Group at the MIT Media Lab. See <http://scratch.mit.edu>