

Lesson 2: Introducing Sprite Lab

45 minutes

Overview

In this **context-setting** lesson, students will discuss the role of computers and technology in their lives, focusing on how apps and tools give users choices about how to use them. Students will also explore apps similar to those they'll create themselves later on.

Purpose

The first lesson is about getting students excited about the course and connecting their own personal interests to computer science.

Standards

Full Course Alignment

CSTA K-12 Computer Science Standards (2017)

- **IC** - Impacts of Computing

Agenda

Warm Up (10 minutes)

Introduction

Main Activity (30 minutes)

Introducing Sprite Lab

Exploring Apps

Share Out

Propose an Improvement

Wrap Up (5 minutes)

Reflection

Objectives

Students will be able to:

- Describe the importance of the user in the design process.
- Identify sprites in a running computer program.

Preparation

- Determine how students will login to Code.org.
- If needed, create Code.org accounts for students.
- Assign Introducing Sprite Lab to students.
- Print copies of ***Exploring Apps** worksheet (or post the digital version to your LMS).

Links

Heads Up! Please make a copy of any documents you plan to share with students.

For the teachers

- **CSF - Course F - Slides 2022-2023** - Slides ([Download](#)) [▼ Make a Copy](#)
- **Exploring Apps** - Answer Key [▼ Make a Copy](#)

For the students

- **Exploring Apps** - Resource [▼ Make a Copy](#)
- **Introducing Sprite Lab** - Video

Vocabulary

- **Sprite** - A graphic on the screen with a location, size, and appearance.

- **User** - Someone who uses an object, including software and hardware.

Teaching Guide

Warm Up (10 minutes)

Introduction

Remarks

In this course we will be learning how to code. Code is used to create apps, games, web pages, simulations, and all kinds of things that we use on a computer.

 **Display:** Show “Reflect” slide

Reflect:

- *What is your favorite game or app?*
- *What choices do you get to make while using it?*

 Teaching Tip

Reflection prompts like these can be completed in a variety of styles. Journaling or discussion (with groups or partners) are great options!

Vocabulary

 **Display:** Show “Vocabulary” slide

- **Sprite** - A graphic on the screen with a location, size, and appearance.
- **User** - Someone who uses an object, including software and hardware.

 **Display:** Show next slide

Do This: Using the lesson slides or a whiteboard, show students a T-chart labeled “Favorite apps and games” on the left and “Why we like them” on the right. After modeling with one example, have students suggest their own additions to the list. As students explain why they like a particular app, restate their ideas and focus on *choices*, and times when the user gets to *choose* how they play or use it. Move on when students are seeing the connection that people prefer to be able to make choices.

Remarks

When apps and games are made, they are designed with a user in mind. The user is you, or whoever will be using and playing with the app. Creators have ideas about how their apps should be used, but it is up to the user to make the choices! Today we are going to explore how (and why) app and game makers let us make choices.

 **Display:** Show “User Choices” slide

Discuss: For each app, ask students what choice the app developers are giving to the user. Why would they include that choice?

Goal: In their discussion, students should be including specific choices that the user gets to make, as well as what the apps are about. For example, Talk Box lets users choose an avatar or digital representation of themselves. This choice is a good thing because it helps the user feel like the app is really for them.

💡 Teaching Tip

This lesson includes a slide deck with some fake apps to use for the purpose of discussion. You can supplement or replace these examples with others based on the interests of your students.

🎤 Remarks

We can see that in all of these apps, the user gets to make choices about how they use it. These choices might motivate more people to want to use the app.

Main Activity (30 minutes)

Introducing Sprite Lab (5 minutes)

📄 **Display:** Show “Introducing Sprite Lab” video

🎥 1

Video: Introducing Sprite Lab

🎤 Remarks

Soon we will be learning to write code and make our own Sprite Lab projects. We will begin by exploring what's possible. Today you are the user! Your task is to play with the sample programs you'll find on the Code.org website. For each one you try, you'll describe the sprite costumes you see and any choices you get to make as the user.

Exploring Apps (15 minutes)

📄 **Display:** Show “Sprite Lab Exploration” slide

Today, students will look at some sample programs that were created using Sprite Lab. They will try interactive apps, games, and simulations.

📄 **Display:** Show “Sample Programs” slide

🎤 Remarks

Explore at least 3 Sprite Lab programs on Code.org. For each program, you will list the sprites you see and describe the choices you made as the user.

📄 **Display:** Show “Explore” slide

Do this:

- Provide each individual (or group) with a physical or digital copy of the ***Exploring Apps** worksheet.
- Direct students to level 2 on Code Studio (Exploration: Sample Apps).
- Consider modeling one app with the class before having students complete the task independently.

Teaching Tip

If this is your students' first time using Code.org, dedicate some extra time to helping students understand how to navigate to the website and sign in to their accounts.

Share Out (5 minutes)

 **Display:** Show "Share Out" slide

Discuss: What were the most interesting choices you were able to make with these apps? Was there ever a time you wished you could change something in the app but were not given the choice?

Goal: Students should be able to name specific choices they made, but should also discuss why they think the creator gave us that choice. Choices to highlight include the words you type in (e.g. Chat Bot), the type of sprites that are used (e.g. Collector Game), or the way you interact with something.

Propose an Improvement (5 minutes)

 **Display:** Show "Propose an Improvement" slide

Prompt: Think about an app you have used, and come up with a way to make it better by giving the user more choices.

As time allows, have students consider the prompt above through one or more of the following methods:

- Have volunteers offer ideas in a whole-group discussion.
- Engage in a small discussion with pairs or small groups.
- Have students create a sketch or poster with their ideas.

Wrap Up (5 minutes)

 **Display:** Show Wrap-Up "Sprite" slide

Remarks

Today we learned about some of the ways app creators give us choices as the user. We also learned about Sprites. Sprites are graphics on the screen with different properties, like size, rotation, and location.

 **Display:** Show Wrap-Up "Sprite Costumes" slide

Remarks

Sprites also have a costume that determines how they appear.

Reflection

 **Display:** Show "Reflect" slide

Reflect:

- *What's an example of a choice you'd like to be able to make in the games or apps you use?*

- *What kind of app or game would you like to create?*



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