

## Introduction to Coding



### Course Overview

In this course, you will learn the basics of coding using a program called **Scratch**. This course will also cover topics to help you use the internet effectively while giving you the tools to be a good Digital Citizen.

### Unit Overview

In this unit, you will get a brief overview of what lies ahead in this course.

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### What is Scratch?

**Scratch** is an online resource used to teach coding skills. Scratch was created by a diverse group of staff and students in the MIT Media Lab. Their research group is called Lifelong Kindergarten—which is fitting, since they've built a playground for kid-coders. Scratch was launched in 2007 as both a creative coding environment and online community. It builds on decades of research from MIT on how children learn through coding, and is designed to enable students to create a wide variety of interactive projects. Available in more than 50 languages, Scratch is the world's largest coding community for kids.

The ability to code computer programs is an important part of literacy in today's society. When people learn to code in Scratch, they learn important strategies for solving problems, designing projects, and communicating ideas.

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### Looking Ahead

In future units, you will complete projects that include coding a Game, creating a Digital Museum, and coding an interactive Story.

Let's explore some of the basics for each of these future projects.

### Game Project

Students take on the role of game developer, coding a game that challenges players to sort objects by category. They also program the positive and negative feedback players get when clicking the objects. For an added challenge, students can design

more elaborate games, adding a score and more.

### ***Objectives***

Students will:

- **Explore coding in a project-based environment**
  - **Program using blocks based on Scratch**
  - **Customize sprites by changing their properties**
  - **Sequence sprites to create a meaningful experience**
  - **Use code to create interactive experiences**
  - **Apply their knowledge of a BrainPOP topic**
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### **Museum Project**

Digital museum invites students to code a museum exhibit about a BrainPOP topic. Using the Scratch interface, students drag and drop blocks of code to create interactions between the items in the museum exhibit, such as conversations, sound effects, movement, and more.

### ***Objectives***

Students will:

- **Explore coding in a project-based environment**
  - **Program using blocks based on Scratch**
  - **Customize sprites by changing their properties**
  - **Sequence sprites to create a meaningful experience**
  - **Use code to create interactive experiences**
  - **Apply their knowledge of a BrainPOP topic**
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### **Story**

Students bring a story to life with code in this Scratch-based project. Using coding blocks, they tell a story that includes a setting, dialogue, sound effects, timed interaction between characters' lines, and more.

### ***Objectives***

Students will:

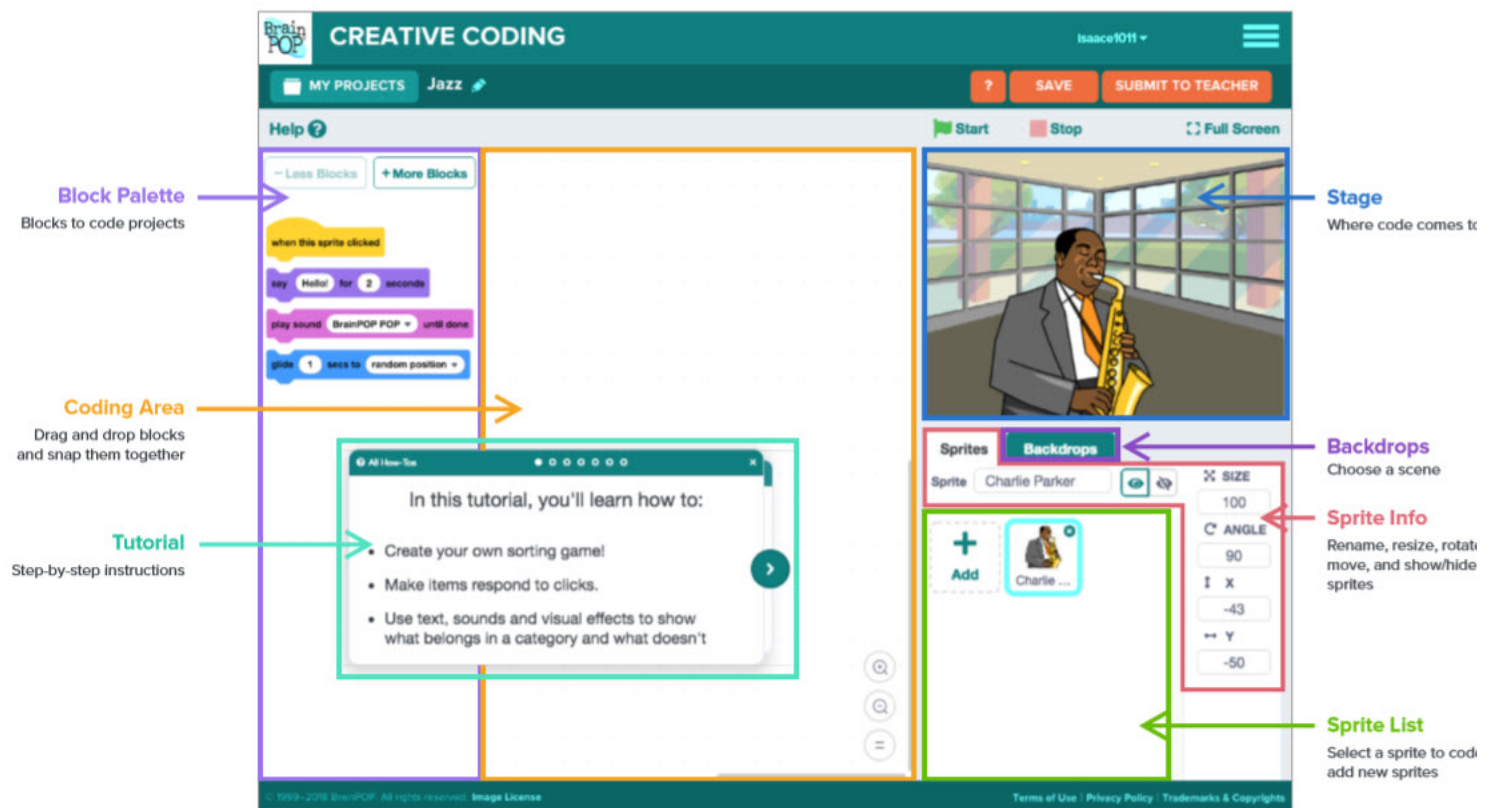
- **Explore coding in a project-based environment**
  - **Program using blocks based on Scratch**
  - **Customize sprites by changing their properties**
  - **Sequence sprites to create a meaningful experience**
  - **Use code to create interactive experiences**
  - **Apply their knowledge of a BrainPOP topic**
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### **What to Expect**

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The image below shows what you will see when you open Scratch for the first time. You can print out this [image](#) to use as a future reference.

## Interface Guide: Scratch



STOP - Now answer the questions.