UNIT 2
OVERVIEW

THE “BIG IDEA”

Kids have shared more than six million projects in the Scratch online community – animations, stories, games, and beyond – and one of our goals with the guide is to reflect this enormous diversity of creations. Within activities, we support opportunities to personalize and avoid presenting challenges that have only one “right” answer; across activities, we engage learners in a variety of genres. In this unit, we start to explore this creative diversity with a deep dive into animation, art, and music.

Creative diversity in Scratch has often been highlighted by learners. Here are a few quotes from learners who were asked, “If you had to explain what Scratch is to one of your friends, how would you describe it?”

“...it’s really great to express yourself creatively. You could do anything with it. You can make video games, music, art, videos, anything. The possibilities are endless, no limitations, really.”

Lindsey, 12 years old

“It’s a program that lets you explore your imagination. You can do whatever you want in it. You can create anything. There really is no limit to what you can make. You design your own stuff, and once you start you just don’t want to stop because as you learn more, you can see there’s more possibilities, and the more possibilities there are, the more you want to expand on what you just learned.”

Bradley, 12 years old

Nevin, 9 years old

“...it’s just that there’s endless possibilities. It’s not like you can just make this project or this project and that’s all that you can make.”

Aaron, 10 years old

“...it’s just that there’s endless possibilities. It’s not like you can just make this project or this project and that’s all that you can make.”

Lindsey, 12 years old

LEARNING OBJECTIVES

Students will:

+ be introduced to the computational thinking concepts of loops, events, and parallelism
+ become more familiar with the concepts of sequence
+ experiment with new blocks in the Events, Control, Sound, and Looks categories
+ explore various arts-themed Scratch programs
+ create an animated music video project

KEY WORDS, CONCEPTS, & PRACTICES

+ loops
+ events
+ parallelism
+ control
+ broadcast
+ scripts
+ presentation mode
+ bitmap
+ vector
+ animation
+ gallery walk

NOTES

+ Many activities in this unit include elements of sound and music. We recommend having headphones readily available for students.
Programming in Scratch is like directing theatre. In theatre, just as in Scratch, there are characters (sprites, in Scratch parlance), costumes, backdrops, scripts, and a stage. Scratch programming utilizes cues called "events", which signal when things should occur in a project, such as: activating a project (when green flag clicked), triggering sprites’ actions (when this sprite clicked), or even sending a silent cue across sprites or backdrops (broadcast).

Inspired by the theatre metaphor, this unit’s arts-themed activities are designed to help students explore the computational concepts of loops, events, and parallelism, culminating in the design of personalized music videos.

**PERFORMING SCRIPTS**

Create your own musical group by making interactive instruments.

**BUILD-A-BAND**

What project can you create that includes an orange square and a purple circle?

**ORANGE SQUARE, PURPLE CIRCLE**

Can you animate it? Experiment with multiple costumes to bring an image to life.

**IT’S ALIVE!**

Help! Can you debug these five Scratch programs?

**DEBUG IT!**

How can you combine animation with music to create your own Scratch-inspired music video?

**MUSIC VIDEO**