

## LESSON 14

# Rocket Lander

60 minutes

Digital Creation Lab

### WHAT THIS LESSON DOES

In this lesson, you'll explore the innovative SpaceX Falcon 9 rocket and create a game to pilot its landing. Follow step-by-step instructions to program gravity, control movements, and simulate a realistic landing experience using Scratch.

### WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the concept of vertical rocket landing and its challenges.
- Develop a game using Scratch, simulating a rocket landing scenario.
- Implement gravity and movement controls in the game using code blocks.
- Create and use costumes to animate rocket thrust and explosion.
- Introduce and manage a fuel limit for added complexity in the game.

## Rocket Lander

### HOW THE LESSON RUNS

The Space X Falcon 9

Open the starter project

Program gravity

Program booster

Paint the rocket thrust

Show the rocket thrust

Move left

Move right

Program the ship sprite

Land on the ship

Explode

Crash into the sea

Fuel

Wrap up