

Shooting Stars

60 minutes

Exploring Electronics and Light

WHAT THIS LESSON DOES

Embark on a fun coding journey where you'll create a new Microbit project, add the neopixel extension, and set up an LED strip. You'll learn to create a 'star' that lights up with a loud sound, test it on your strip, and make it 'shoot'. Add a splash of colour to your stars and download your code to see different coloured 'stars' shooting along the strip.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Develop skills in creating and managing a new Microbit project.
- Understand and apply the neopixel extension to program the LED strip.
- Gain proficiency in setting up and programming the LED strip using code blocks.
- Learn to utilise the microphone in the microbit to detect sound and trigger LED actions.
- Acquire knowledge on how to test and debug the project on the LED strip.
- Master the concept of pixel shifting to create the illusion of moving light.
- Experiment with random colour generation for the LED strip.
- Learn to download and implement the code onto the microbit for real-world testing.

Shooting Stars

HOW THE LESSON RUNS

Create a new Microbit project

Add the neopixel extension

Setup the LED Strip

Create the star

Test it on your strip

Make it shoot

Random colours

Download your code