# Introduction to Creative Computing: P5.js Level I
# Suitable for: G7 - G10

**Prerequisite:** None
**Duration:** 25 Weeks
**Classes per Week:** 1 class (45 minutes each)

## Course Overview:

This course introduces students to creative computing with P5.js, a JavaScript library for visual arts and interactive media. Students will learn foundational programming concepts, including drawing shapes, creating interactive animations, and using conditionals and loops. By the end of the course, students will be able to create visually engaging projects using code as a creative tool.

## Covered Topics

### Unit 1: Introduction to Programming and Drawing Basics
- Understanding programming as a tool for creative expression
- Basic shapes and colors
- Complex shape creation

# Introduction to Creative Computing: P5.js Level I
## Suitable for: G7 - G10

## Unit 2: Interactive Drawings and Animation
- Applying shapes to create recognizable images
- Generating random values to add unpredictability to art
- Creating continuous animations

## Unit 3: User Interaction and Conditionals
- Experimenting with expressions using shapes
- Manipulating dimensions for interactive designs
- Responding to user input with mouse functions
- Introducing conditionals for decision-making in code

## Unit 4: Advanced Interactivity and Variables
- Expanding user interactions with advanced mouse functions
- Displaying information dynamically
- Storing and using data to affect visuals
- Using mathematical operators to create dynamic designs

# Introduction to Creative Computing: P5.js Level I
# Suitable for: G7 - G10

## Unit 5: Complex Logic and Final Projects
- Advanced use of conditionals for complex interactions
- Adding keyboard interaction for more user control
- Create an interactive art project showcasing learned skills

## Materials Needed:
- Access to a computer or tablet
- Internet connection
- Chrome browser

## Assessment
At the end of each lesson, learners will be assessed on their ability to apply programming concepts, including shapes, functions, conditionals, and interactions within their projects. Assessments will focus on how creatively and effectively students use P5.js to bring their ideas to life.

## Certification
A certificate of completion will be awarded upon the successful completion of the course.