

# Queens College - Tech Incubator

## Class Outline

**Title:** Coding Music

**Purpose:** To teach students how to use Sonic Pi to learn about music, computer programming, and to create unique songs.

**Audience:** K-12 students, anyone interested in learning basics of coding and music

**Duration:** 5 half day (3 hour) sessions.

### Learning Objectives:

By the end of this class, the participants will be able to:

1. Explain what Sonic Pi is
2. Describe what we can do using Sonic Pi
3. Write lines of programming code on Sonic Pi
4. Create their very own songs using those lines of programming code
5. Understand basic programming structures such as loops, functions, and variables
6. Understand basic music notation such as notes, rests, and chords

### Topics

1. Introduction to Sonic Pi
2. Playing your first notes on Sonic Pi
3. Programming Structures (Loops, Functions, Variables)
4. Create a unique song using Sonic Pi
5. Student Final Project presentation