



Introduction to Scratch

Big Ideas: Internet, Programming, Creativity

Tools: Internet connection, computer, Google Chrome or Firefox, Flash, pencil, paper, headphones

Website: scratch.mit.edu

Science and Technology competencies

Competency 1: To propose explanations for or solutions to scientific or technological problems.

Competency 2: To make the most of scientific and technological tools, objects and procedures

Competency 3: To communicate in the languages used in science and technology.

Cross-Curricular Competencies:

Competency 6: To use information and communications technologies

Competency 8: To cooperate with others

Code Literacy:

We will develop a student's ability to think computationally and actively participate in the digital world we live in.

Class 1: Introduction to Code

- Class discussion: what is code? What is computer code? What is the Internet?

- Why learn to code?
- Introduction to programming languages
- Scratch introduction video
- Exploration of projects

Class 2: Explore Scratch

- Introduction to Scratch blocks
- Introduction to Sprites
- Discussion and beginning of class project

Class 3: All About Me, and concepts

- Discussion on debugging and problem solving
- Introduction to loops
- Introduction to parallelism
- Introduction to events
- Introduction to sequences

Class 4: Project Development

- Review of events, parallelism, loops, sequences
- Discussion of common code issues
- Focus on developing all about me project

Class 5: Group work

- Review Quiz
- Example program and discussion
- Introduction to Conditionals
- Group debugging

Class 6: Remixing, data, variables, and operators

- Code remixing (hacking)
- Commenting and clean code
- Introduction to data
- Introduction to variables
- Introduction to operators
- Completion of project

Class 7: Animation Project

- Beginning of animation project

Class 8: Make a Character Move