



Computer Science Foundations

2nd grade

Programming Language:

ScratchJr

Software used in Course:

ScratchJr

Supported Devices

iPad
Android Tablet
Amazon Fire Tablet
Chromebook

Instructional Models:

Direct Instruction
Instructional Scaffolding
Use of Learning Objectives
Relevant Vocabulary
Bloom's Taxonomy or Questions
Inquiry-Based Instruction
Project-Based Instruction
Cooperative Learning
Independent Study

Supported Learning Models:

Classroom
Blended
Hybrid
Synchronous
Asynchronous

Standards Aligned:

National and State Computer Science Standards

Reinforces:

Math
ELA
Social-Emotional Learning

Course Description

In this course, students evaluate the impacts of modern technology and expand on previously learned computer science skills. During Unplugged and Coding lessons, students utilize the Engineering Design Process to decompose problems and improve on designs through iteration. Digital Citizenship and STEM Career lessons allow students to reflect on real-world issues, including ways to keep private information safe and cyberbullying. By the end of this course, students will be able to apply their skills to create progressively more challenging coding projects in ScratchJr.

Learning Objectives

Each lesson plan is designed to enable students to achieve specific learning outcomes related to course aligned computer science competencies. For example, at the end of this course students will be able to:

- Follow the Engineering Design Process steps when creating a program.
- Recall and explain of how information travels via the Internet.
- Demonstrate how to debug an algorithm when a desired task has not be completed..
- Create complex programs when given set of criteria.
- Demonstrate an understanding of computer science in a variety of career fields.