



# 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 Scolding  
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

Expand knowledge of foundational computer science skills and coding concepts. Apply to progressively challenging projects using ScratchJr, an introductory block coding language. Learn the Engineering Design Process, criteria driven coding, and debugging. Unplugged and Digital Citizenship lessons reflect on real-world issues, including strategies to keep information safe and how modern technology has changed the way we live. At the end of this course, students will have learned, practiced, and implemented foundational computer science skills.

## 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 steps of the Engineering Design Process when creating a program.
- Recall and explain of how information travels via the Internet.
- Demonstrate how to debug an algorithm that does not complete the desired task.
- Create complex programs following a given set of criteria.
- Demonstrate an understanding of computer science in a variety of career fields.
- Create algorithms using events, loops, and triggering blocks.