

#### **Codes and Computers**

Click on each lesson to access its online resources. Page numbers refer to pages in the Teacher Guide. Some links provide access to files created by the Core Knowledge Foundation, including PDF documents that you can download and view with the appropriate software (such as <u>Adobe Reader</u>).

Introduction

Lesson 2

Lesson 3

Lesson 4

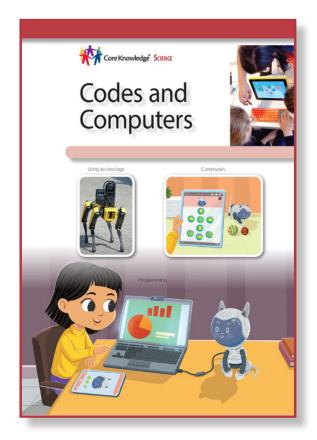
Lesson 5

Lesson 6

Lesson 7

Lesson 9

**Teacher Resources** 



**NOTE:** There are no online resources for Lessons 1 or 8.



### **Codes and Computers**

#### Introduction

Page	Resource Links
3	Note to Core Knowledge Teachers:
	Core Knowledge Science (Website)
	This unit has been informed by the Computer Science Teacher Association (CSTA) K–12 Standards.
	<u>Learn more about the standards.</u> (Website)
7	Common Core State Standards for English Language Arts (PDF Document)
12	Resources for Effective and Safe Classroom and Online Activities (PDF Document)
13	Materials List for Grade 3 Codes and Computers (PDF Document)

★ Table of Contents
 First Lesson
 ★ First Lesson



## **Codes and Computers**

#### **Lesson 2**

Page	Resource Links
24	Lesson 2, Part 1:
	YouTube - What is the Internet? (Video)
	<b>NOTE:</b> Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.





## **Codes and Computers**

### Lesson 3

Page	Resource Links
32	Lesson 3, Part 2:
	Common Sense Education - Follow the Digital Trail (Video)
	Common Sense Education - Digital Trails: Animal Tracks Squares (Activity)
	Common Sense Education - Digital Trails: Animal Tracks Student Handout (Handout)
	Common Sense Education - Digital Footprints (Website)
	<b>NOTE:</b> Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.





### **Codes and Computers**

#### Lesson 4

Resource Links
Lesson 4, Part 1:
CS Unplugged - How Binary Digits Work (Website)
Lesson 4, Part 2:
Code.org - Binary Decoder Key (Handout)
YouTube - How Computers Work: Binary & Data (Video)

**NOTE:** Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.





## **Codes and Computers**

#### Lesson 5

Page	Resource Links
43	Lesson 5, Part 1:
	Mind Tools - How to Use Charts and Graphs Effectively: Choosing the Right Visual for Your Data (Article)
	NOTE: Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.

← Previous Lesson Next Lesson →



## **Codes and Computers**

#### Lesson 6

Page	Resource Links
51	Lesson 6, Part 2:
	Computer Hope - What Are the Most Common Symbols Used by Computers? (Website)
	NOTE: Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.

← Previous Lesson Next Lesson → Previous Lesson Next Lesson → Previous Lesson → Previous



### **Codes and Computers**

#### Lesson 7

Page	Resource Links
55	Lesson 7, Part 1:
	Tynker - Algorithm for Kids: Definition, Examples, Benefits and More (Website)
57	Lesson 7, Part 2:  Hello Ruby Map Algorithms (Handout)
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**NOTE:** Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.





### **Codes and Computers**

#### Lesson 9

Page	Resource Links
67	Lesson 9, Part 1:
	Interaction Design Foundation - The 5 Stages in the Design Thinking Process (Article)
69	Lesson 9, Part 2:
	ScratchJr (Website / App)
	ScratchJr - About ScratchJr (Website)
	ScratchJr: Motion Blocks (Handout)
	ScratchJr - Classroom Dance Party Activity Guide (Activity Guide)
	ScratchJr - Activities Database (Activity Guides)

**NOTE:** Preview all videos, and cue beyond introductory advertisements before classroom display. Many video clips are best displayed with the sound muted and supported by teacher explanation.



### **Codes and Computers**

#### **Teacher Resources**

Page	Resource Links
78–80	Teacher Guide Appendices:
	Appendix A: Glossary (PDF Document)
	Appendix B: Internet Safety (PDF Document)
	Appendix C: Strategies for Acquiring Materials (PDF Document)
	Internet Safety:
	U.S. Department of Education (Website)
	National Cybersecurity Alliance (Website)
	Safety in the Science Classroom:
	NSTA Safety Resources (Website)
	Safety Resources for Elementary Teachers (PDF Document)

Previous Lesson