

Online Resources

Problem-Solving 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 [Adobe Reader](#)).

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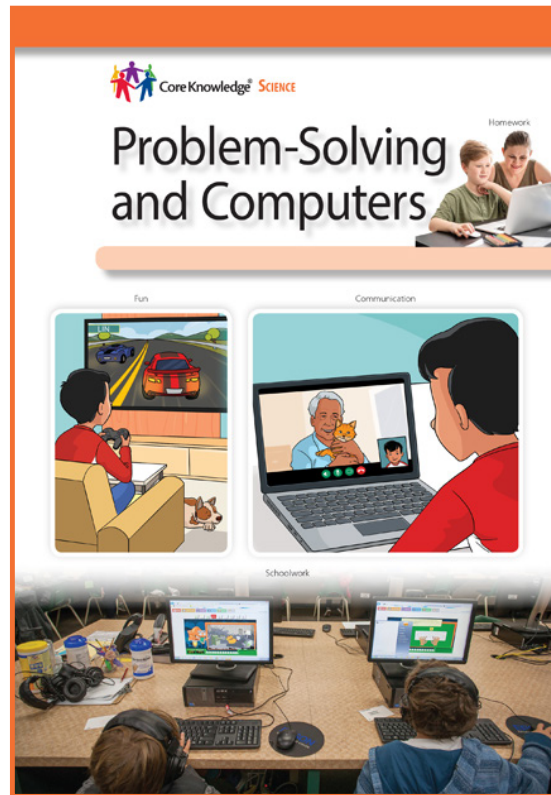
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NOTE: There are no online resources for Lessons 4 or 6.

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Introduction

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3	<p>Note to Core Knowledge Teachers: Core Knowledge Science (Website)</p> <p>This unit has been informed by the Computer Science Teacher Association (CSTA) K–12 Standards. Learn more about the standards. (Website)</p>
7	Common Core State Standards for English Language Arts (PDF Document)
14	Resources for Effective and Safe Classroom and Online Activities (PDF Document)
15	Materials List for Grade 4 Problem-Solving and Computers (PDF Document)

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Lesson 1

Page	Resource Links
24	Lesson 1, Part 1: Kids Discover - Roman Aqueducts: The Dawn of Plumbing (Article) National Geographic - Roman Aqueducts (Article) Techwalla - What Are the Differences Between a Typewriter Keyboard and a Computer Keyboard? (Article)
25	Lesson 1, Part 2: National Pen Company - Parts of a Pen (Article) YouTube - How Does a Clicky Pen Work? (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.

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Lesson 2

Page	Resource Links
31	Lesson 2, Part 1: Medium.com - How Do Computers Communicate with Each Other? (Article)
36	Lesson 2, Part 3: Common Sense Education - Private and Personal Information (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.

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Lesson 3

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43	<p>Lesson 3, Part 2:</p> <p>Clement & John.com - Analogue and Digital Data (Website)</p> <p>The ICT Lounge - Section 5.5: Analogue and Digital Data (Website)</p> <p>Diffen - Analog vs. Digital (Website)</p> <p>Scistarter.org (Website)</p> <p>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.</p>

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Lesson 5

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57	<p>Lesson 5, Part 1:</p> <p>Epicurious.com (Website)</p> <p>Simply Recipes - Recipes & Cooking Ideas (Website)</p> <p>Launch School - Variables (Website)</p> <p>ThoughtCo - Definition of Variable (Article)</p> <p>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.</p>

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Lesson 7

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80	<p>Lesson 7, Part 2:</p> <p>YouTube - Program your teacher to make a Jam Sandwich (Sandwich Bot) Junior Computer Science (Video)</p> <p>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.</p>

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Lesson 8

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86	Lesson 8, Part 2: Common Sense Digital Passport - Mix-n-Mash Log-In (Website) Common Sense Education - Digital Passport FAQs (Website)
89	Lesson 8, Part 3: W3C WAI - Diverse Abilities and Barriers (Website) YouTube - Designing for Disability (Videos)
<p>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.</p>	

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Lesson 9

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94	Lesson 9, Part 1: Insider - Computers Actually Date Back to the 1930s. Here's How They've Changed. (Article) C.S. Point - Evolution of Computer (Article)
96	Lesson 9, Part 2: PBS Learning Media - Technology Over Time (Interactive)
100	Lesson 9, Part 3: Imagine IT - Ten Technologies (Inventions) That Have Changed the World (Article) Indeed - 20 Types of Technology: Definitions and Examples (Article)
<p>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.</p>	

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Lesson 10

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102	<p>Lesson 10, Part 2:</p> <p>Scratch Wiki - Comments: Programming Feature (Website)</p> <p>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.</p>

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106– 111	<p>Teacher Guide Appendices:</p> <p>Appendix A: Glossary (PDF Document)</p> <p>Appendix B: Internet Safety (PDF Document)</p> <p>Appendix C: Strategies for Acquiring Materials (PDF Document)</p> <p>Internet Safety:</p> <p>U.S. Department of Education (Website)</p> <p>National Cybersecurity Alliance (Website)</p> <p>Safety in the Science Classroom:</p> <p>NSTA Safety Resources (Website)</p> <p>Safety Resources for Elementary Teachers (PDF Document)</p>

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