

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

### **Introduction:**

All students in Grade 3 Computer Science and Design Thinking will have opportunities to apply computer science skills to solve local and global issues and design solutions to problems. They will also collaborate to share and communicate their thinking with diverse audiences. In addition to understanding internet safety, students will understand the nature of technology, the interaction of technology and humans, and the effect of technology on the natural world. Skills include performing tasks, computational thinking, and problem solving. Students will learn the parts of a computer and use Chromebook and iPad devices to create collaborative, digital artifacts. All technology units follow the NJ Student Learning Objectives. Student progress will be measured in a variety of methods.

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<b>Original Adoption:</b> August 20, 2019
<b>Created By:</b> Chloe Sheplin
<b>Revised on:</b> August 16, 2022
<b>Revised By:</b> Cathy McBride

<b>Recommended Pacing Guide</b>	
Unit 1: Coding	10 Days
Unit 2: Digital Citizenship	5 Days
Unit 3: Applying Technology	10 Days
Unit 4: Using Technology to Improve Our World	10 Days

\*There are about 35 Technology classes throughout the school year.

<b>Unit 1: Coding</b>	<b>Duration:</b> 10 Days
<b>Standards/Learning Targets</b>	
<p><b>New Jersey Technology Strands:</b></p> <ul style="list-style-type: none"> <li>● 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.</li> <li>● 8.2 Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.</li> </ul>	
<p><b>New Jersey Technology Standards:</b></p> <p>Standard 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.</p> <p>CS: Computer Science 8.1.5.CS.1, 8.1.5.CS.2            NI: Network and Internet 8.1.5.NI.1 IC:            Impacts of Computing 8.1.5.IC.1            DA: Data &amp; Analysis 8.1.5.DA.1, 8.1.5.DA.2</p>	

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AP: Algorithms & Programming 8.1.5.AP.1, 8.1.5.AP.2, 8.1.5.AP.3, 8.1.5.AP.4

8.2 Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

ED: Engineering Design 8.2.5.ED.1, 8.2.5.ED.2, 8.2.5.ED.4, 8.2.5.ED.4

ITH: Interaction of Technology and Humans 8.2.5.ITH.1, 8.2.5.ITH.2

NT: Nature of Technology 8.2.5.NT.1, 8.2.5.NT.2 ETW:

Effects of Technology on the Natural World 8.2.5.ETW.1, 8.2.5.ETW.3

EC: Ethics and Culture 8.2.5.EC.1

### **Primary Interdisciplinary Connections:**

#### **English Language Arts**

**RI.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers

Science

**3-LS1-1** Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

### **Career Readiness, Life Literacies, and Key Skills Practices**

- Demonstrate creativity and innovation.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Use technology to enhance productivity, increase collaboration and communicate effectively.
- Consider the environmental, social and economic impacts of decisions
- Act as a responsible and contributing community member and student

### **Career Readiness, Life Literacies, and Key Skills**

9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.

9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.

9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem.

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

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- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.DC.1: Explain the need for and use of copyrights.
- 9.4.5.DC.2: Provide attribution according to intellectual property rights guidelines using public domain or creative commons media.
- 9.4.5.DC.3: Distinguish between digital images that can be reused freely and those that have copyright restrictions.
- 9.4.5.DC.4: Model safe, legal, and ethical behavior when using online or offline technology.
- 9.4.5.DC.5: Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- 9.4.5.DC.6: Compare and contrast how digital tools have changed social interactions.
- 9.4.5.DC.7: Explain how posting and commenting in social spaces can have positive or negative consequences.
- 9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance.
- 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- 9.4.5.IML.3: Represent the same data in multiple visual formats in order to tell a story about the data.
- 9.4.5.IML.4: Determine the impact of implicit and explicit media messages on individuals, groups, and society as a whole.
- 9.4.5.IML.5: Distinguish how media are used by individuals, groups, and organizations for varying purposes.
- 9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.IML.7: Evaluate the degree to which information meets a need including social emotional learning, academic, and social.
- 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.2: Sort and filter data in a spreadsheet to analyze findings.
- 9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.
- 9.4.5.TL.4: Compare and contrast artifacts produced individually to those developed collaboratively.
- 9.4.5.TL.5: Collaborate digitally to produce an artifact.

**Evidence of Student Learning**

<b>Formative Tasks:</b> <ul style="list-style-type: none"><li>● Teacher Observation</li><li>● Teacher Checklist</li></ul>	<b>Alternative Assessments:</b> <ul style="list-style-type: none"><li>● End of Unit Project</li><li>● Portfolios</li></ul>
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<ul style="list-style-type: none"> <li>● Verbal question &amp; answer</li> <li>● Self-evaluation of performance and progress</li> <li>● Class discussions</li> <li>● Peer editing</li> <li>● Self-evaluation</li> </ul>	<ul style="list-style-type: none"> <li>● Performance Tasks</li> </ul>
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<p><b>Summative Assessments:</b></p> <ul style="list-style-type: none"> <li>● Student participation</li> <li>● Student presentation of completed project</li> </ul>	<p><b>Benchmark Assessments:</b></p> <ul style="list-style-type: none"> <li>● Baseline SGO</li> <li>● Mid-year SGO</li> <li>● End of year SGO</li> </ul>
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**Knowledge & Skills**

<p><b>Unit Objectives:</b> Students will know...</p> <p>Learners develop and follow directions as part of daily life. Create a plan for solving a task. Sequence steps can be expressed as an algorithm that a computer can process. Complex steps can be broken down into simpler instructions. Computers follow precise sequences of steps that automate tasks.</p>	<p><b>Unit Objectives:</b> Students will be able to...</p> <ul style="list-style-type: none"> <li>● Identify the problem to be solved.</li> <li>● Use appropriate vocabulary to solve the problem.</li> <li>● Solve an assigned puzzle by step by step directions.</li> <li>● Be able to debug a program step by step.</li> <li>● Understand and apply an algorithm to make a model.</li> </ul>
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<p><b>Enduring Understandings:</b> Students will understand...</p> <ul style="list-style-type: none"> <li>● Digital tools can be used for a variety of tasks.</li> <li>● How to add and describe a sequence of steps.</li> <li>● How to use graphic organizers.</li> <li>● How to create a model of a life cycle using algorithms.</li> </ul>	<p><b>Essential Questions:</b> What is the right tool to use? How can I use my digital tools and skills in new situations? How do I follow directions on a digital device? How do I add a sequence of steps? Can I describe the sequence of steps I added to get to the end result? What is a graphic organizer?</p>
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**Core Instructional & Supplemental Materials**

<p><b>Suggested Activities/Resources:</b></p> <ul style="list-style-type: none"> <li>● Create algorithm to model the life cycle of a butterfly using Scratch <a href="https://scratch.mit.edu/projects/513513947/">Butterfly Algorithms</a> (Scratch <a href="https://scratch.mit.edu/projects/513513947/">https://scratch.mit.edu/projects/513513947/</a>)</li> </ul>	<p><b>Varied Levels of Text:</b></p> <ul style="list-style-type: none"> <li>● <i>You Can't Dance to These Rhythms: What Are Algorithms?</i> by Brian P. Cleary</li> <li>● <i>I Can Code: If/Then</i> by Vicky Fang</li> </ul>
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<ul style="list-style-type: none"> <li>● Create algorithm for how to solve jigsaw puzzle <a href="#">Puzzling Procedure</a></li> <li>● Demonstrate proper use and practices</li> <li>● KidPix</li> <li>● BrainPopJr.</li> <li>● Google Earth</li> <li>● G-Suite</li> <li>● GMail</li> <li>● Classroom Library</li> <li>● Computers</li> <li>● iPad</li> <li>● Chromebooks</li> <li>● Internet</li> <li>● Google</li> <li>● <a href="http://www.brainpopjr.co">www.brainpopjr.co</a></li> <li>● <a href="http://www.abcya.com">www.abcya.com</a></li> <li>● Code.org</li> <li>● Tynker.com</li> <li>● Kodable.com</li> <li>● Scratch</li> <li>● <a href="#">Tools and videos</a> code.org video library</li> <li>● <a href="http://www.lbischools.org">www.lbischools.org</a></li> <li>● <a href="http://www.scholastic.com">www.scholastic.com</a></li> <li>● <a href="http://www.readingeggs.com">www.readingeggs.com</a></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Coding to Kindness</i> by Valerie Sousa</li> <li>● <i>Adi Sorts With Variables</i> by Caroline Karanja</li> <li>● <i>Nothing Loopy About This: What Are Loops and Conditionals?</i> By Brian P. Cleary</li> <li>● <i>Gabi's If/Then Garden</i> by Caroline Karanja</li> <li>● <i>I Can Code: And/Or</i> by Vicky Fang</li> <li>● <i>Invent-a-Pet</i> by Vicky Fang</li> <li>● <i>Adi's Perfect Patterns and Loops</i> by Caroline Karanja</li> <li>● Leedy, L. (1993) <u>Tracks in the sand (life cycle of loggerhead turtle)</u></li> <li>● <u>A is for Array</u> by Brandon Hansen</li> <li>● <u>How to Code a Sandcastle</u> by Josh Funk</li> <li>● <u>If I Built a School</u> by Chris van Dusen</li> <li>● <u>Cece Loves Science</u> by Vashti Harrison</li> <li>● <u>When Charlie McButton Lost Power</u> by Suzanne Collin</li> <li>● <u>Webster's Manners</u> by Hannah Whaley</li> <li>● <u>Chicken Clicking</u> by Jeanne Willis</li> <li>● <u>Hello Ruby: Journey Inside the Computer</u> by Linda Liuka</li> <li>● <u>Cyber Safety Simply: A Cautionary Picture Book</u> by Dee Smith</li> <li>● <u>Grace Hopper: Queen of Computer Code</u> by Laurie Wallmark</li> </ul>
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<b>Accommodations/Modifications</b>
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<p><b>English Language Learners:</b></p> <ul style="list-style-type: none"> <li>● Collaborate with ELL department to make necessary modifications for students</li> <li>● Provide translated material</li> <li>● Provide differentiation for students as needed</li> <li>● Use student helpers and cooperative learning</li> <li>● Use visual aids</li> <li>● Rephrase vocabulary</li> </ul>
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- Allow for alternate forms of responses

### **Special Education/504 Plans/Students with Disabilities:**

- Provide differentiated instruction as needed
- Follow all IEP modifications/504 plan
- Provide manipulatives or the opportunity to draw solution strategies
- Shorten assignments to focus on mastery of key concepts
- Restate, reword and clarify directions
- Lessen the amount of information presented
- Allow for alternate forms of responses
- Increase eye contact
- Maintain close proximity
- Attention techniques
- Screen, mouse, and or sound modification
- Adapted access/programs

### **Students at Risk of Failure:**

- Make sure children feel welcome and comfortable while being discrete
- Help to provide basic needs while the child is in school (food, clothing, etc)
- Provide resources for basic needs outside of school (medical, shelter, food, etc)
- Pair with adult mentor or buddy
- Rephrase vocabulary
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences

### **Economically Disadvantaged:**

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Perspective and experiences of the children need to be considered
- Create ways for students to share their emotions
- Give every student the same opportunity for success.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.
- Daily affirmations
- Asking to hear students' hopes and offering reinforcements of those hopes
- Telling students why they can succeed

### **Culturally Diverse:**

- Involve families in student learning
- Provide social/emotional support
- Recognize native languages and cultures
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary

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### **Gifted and Talented**

- Peer mediated strategies
- Cooperative learning groups
- Differentiated instruction

*Presentation accommodations allow a student to:*

- Vary the method of presentation: lecture, small groups, large group, demonstration, individual experimentation
- Explore real world connections
- Use technology tools to enhance content

*Response accommodations allow a student to:*

- Turn and Talk
- Reward risk taking while encouraging students to think “outside of the box”

*Setting accommodations allow a student to:*

- Use flexible seating
- Have choice in seating/grouping

*Timing accommodations allow a student to:*

- Have flexible pacing in terms of content, assignments, and assessments
- Explore extended activities

*Scheduling accommodations allow a student to:*

- Establish a timeline for completing a project
- Have rigorous Pacing

*Organization skills accommodations allow a student to:*

- Model executive functioning
- Utilize independent skills practices

*Assignment modifications allow a student to:*

- Complete enrichment tasks
- Write longer passages on essays and open ended responses including academic vocabulary
- Answer higher order thinking questions
- Cite text evidence
- Create alternate projects or assignments, student developed rubrics, student choice when completing a project or alternate labs

*Curriculum modifications provide:*

- Topics of interest to the student and/or relevant to how the world works
- Students access to supplemental reading materials matched to individual student lexiles
- Opportunities for open-ended, self-directed activities



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- Opportunities to get graded or assessed using a different standard than the one for others

<b>Unit 2: Digital Citizenship</b>	<b>Duration: 5 Days</b>
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**Standards/Learning Targets**

**New Jersey Technology Strands:**

- 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
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**New Jersey Technology Standards:**

Standard 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

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NI: Network and Internet 8.1.5.NI.1, 8.1.5.NI.2

IC: Impacts of Computing 8.1.5.IC.1, 8.1.5.IC.2

DA: Data & Analysis 8.1.5.DA.1, 8.1.5.DA.4 8.1.5.DA.3, 8.1.5.DA.5

AP: Algorithms & Programming 8.1.5.AP.1, 8.1.5.AP.4 8.2

Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

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ITH: Interaction of Technology and Humans 8.2.5.ITH.1, 8.2.5.ITH.2

NT: Nature of Technology 8.2.5.NT.1, 8.2.5.NT.2

ETW: Effects of Technology on the Natural World 8.2.5.ETW.1, 8.2.5.ETW.2

EC: Ethics and Culture 8.2.5.EC.1

**Primary Interdisciplinary Connections:**

**English Language Arts**

RL 3.1, RI 3.1

**Mathematics**

W.3.4, W.3.5, W.3.6 Math 3.MD.3, 3.MD.4

**Career Readiness Practices:**

- Demonstrate creativity and innovation.

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- Utilize critical thinking to make sense of problems and persevere in solving them.
- Use technology to enhance productivity, increase collaboration and communicate effectively.
- Consider the environmental, social and economic impacts of decisions
- Act as a responsible and contributing community member and student

### **Career Readiness, Life Literacies, and Key Skills**

9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.

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- 9.4.5.IML.5: Distinguish how media are used by individuals, groups, and organizations for varying purposes.
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- 9.4.5.TL.4: Compare and contrast artifacts produced individually to those developed collaboratively.
- 9.4.5.TL.5: Collaborate digitally to produce an artifact.

**Evidence of Student Learning**

**Formative Tasks:**

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress
- Exit Slip
- Keyboarding tasks
- Question and answer sheets

**Alternative Assessments:**

- End of Unit Project
- Student self-reflection about creation or discussion while planning a project
- rubric to score student work and presentation of final creation
- Teacher Checklist to record student understanding of skills based on participation and performance of skills

**Summative Assessments:**

- Student participation
- Student presentation of completed project

**Benchmark Assessments:**

- Baseline SGO
- Mid-year SGO
- End of year SGO

**Knowledge & Skills**

**Unit Objectives:**

Students will know...

- The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

**Unit Objectives:**

Students will be able to...

- Use technology and digital tools collaboratively and strategically.
- Understand cybersafety.

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- Digital tools and environments support the learning process and foster collaboration in solving issues and problems.
- Technological advancements create societal concerns regarding the practice of safe, legal and ethical behaviors.
- Effective use of digital tools assists in gathering and managing information.
- Information accessed through the use of digital tools assists in generating solutions and making decisions.
- The ability to recognize a problem and apply critical thinking and problem-solving skills to solve that problem is a lifelong skill that develops over time.
- Collaboration and teamwork enable individuals or groups to achieve common goals with greater efficiency.
- Effective communication skills convey intended meaning to others and assist in preventing misunderstandings.
- Digital media are 21st-century tools used for communication.
- There are ethical and unethical uses of communication and media.
- The nature of the 21st-century learning environment has shifted, demanding greater individual accountability, productivity, and collaboration.
- Ethical behaviors support dignity in all aspects of life.
- The identification of key ideas and details is essential in the interpretation of text.
- The reading of informational text provides rich opportunities for the integration of knowledge and ideas.
- Research builds knowledge.
- Collaboration with peers fosters the development of one's own comprehension and development of ideas
- Use technology to generate solutions to problems.

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<p><b>Enduring Understandings:</b> Students will understand...</p> <ul style="list-style-type: none"> <li>● Cyberbullying is different from real-life bullying</li> <li>● Effects of cyberbullying</li> <li>● What tools are used most for cyberbullying.</li> <li>● How to deal with and prevent cyberbullying.</li> <li>● Being anonymous affects online behaviors.</li> </ul>	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>● What behaviors constitute cyberbullying?</li> <li>● How does cyberbullying differ from real-life bullying?</li> <li>● Are the psychological and emotional outcomes of cyberbullying any worse than those of real-life bullying?</li> <li>● What role does anonymity play in one's inclination to bully another using the Internet or other technologies?</li> <li>● Why would one engage in cyberbullying?</li> <li>● What medium (e.g., emailing, texting, instant messaging, social networking) lends itself most to cyberbullying?</li> <li>● What are the best ways to deal with cyberbullying?</li> <li>● What are the best ways to prevent cyberbullying?</li> </ul>
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**Core Instructional & Supplemental Materials**

<p><b>Suggested Activities/Resources:</b></p> <ul style="list-style-type: none"> <li>● Cyber Safety presentation</li> <li>● Google for research purposes</li> <li>● iPad apps for digital learning environments</li> <li>● Computer hardware</li> <li>● Computer programs and software</li> <li>● SmartBoard</li> <li>● Google</li> <li>● KidPix</li> <li>● BrainPopJr.</li> <li>● Google Earth</li> <li>● G-Suite</li> <li>● Gmail</li> <li>● <a href="#">Quick Digital Citizenship Activities for K–5 Distance Learning   Common Sense Education</a></li> <li>● “The Power of Words” <a href="#">Grade 3-The</a></li> </ul>	<p><b>Varied Levels of Text:</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Bully by Patricia Pollaco</a></li> <li>● <a href="#">Cell Phony</a></li> <li>● <a href="#">Webster’s Friend</a></li> <li>● <a href="#">Goodnight iPad: a Parody for the Next Generation</a> by Ann Droyd</li> <li>● <a href="#">Peter And Pablo The Printer: Adventures In Making The Future</a> by Jeffrey Ito</li> <li>● <a href="#">But I Read It on the Internet!</a> by Toni Buzzeo</li> <li>● <a href="#">The Internet Sleuths</a></li> <li>● <a href="#">Peter and Pablo the Printer</a></li> <li>● <a href="#">What Does it Mean to Be Safe?</a></li> <li>● <a href="#">Doug Unplugged</a> by Dan Yaccarino</li> <li>● <a href="#">Patrick’s Dinosaurs on the Internet</a> by Carol Carrick</li> </ul>
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Content Area: Computer Science and Design Thinking

- [Power of Words-Quick Activity Guide](#)
- “Rings of Responsibility” [Grade 3-Your Rings of Responsibility-Quick Activity Guide](#)
- “Digital Trails” [Grade 2 - Digital Trails - Quick Activity Guide](#)
- “We the Digital Citizens” [Grade 2 -We the Digital Citizens - Quick Activity Guide](#)
- [Tools and videos](#) code.org video library
- [www.lbischools.org](http://www.lbischools.org)
- [www.scholastic.com](http://www.scholastic.com)
- [www.readingeggs.com](http://www.readingeggs.com)

### Accommodations/Modifications

#### English Language Learners:

- Collaborate with ELL department to make necessary modifications for students
- Provide translated material
- Provided differentiation for students as needed
- Use student helpers and cooperative learning
- Use visual aids
- Rephrase vocabulary
- Allow for alternate forms of responses

#### Special Education/504 Plans/Students with Disabilities:

- Provide differentiated instruction as needed
- Follow all IEP modifications/504 plan
- Provide manipulatives or the opportunity to draw solution strategies
- Shorten assignments to focus on mastery of key concepts
- Restate, reword and clarify directions
- Lessen the amount of information presented
- Allow for alternate forms of responses
- Increase eye contact
- Maintain close proximity
- Attention techniques

#### Students at Risk of Failure:

- Make sure children feel welcome and comfortable while being discrete
- Help to provide basic needs while the child is in school (food, clothing, etc)
- Provide resources for basic needs outside of school (medical, shelter, food, etc)
- Pair with adult mentor or buddy

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

- Rephrase vocabulary
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences

### **Economically Disadvantaged:**

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Perspective and experiences of the children need to be considered
- Create ways for students to share their emotions
- Give every student the same opportunity for success.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.
- Daily affirmations
- Asking to hear students' hopes and offering reinforcements of those hopes
- Telling students why they can succeed

### **Culturally Diverse:**

- Involve families in student learning
- Provide social/emotional support
- Recognize native languages and cultures
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary

### **Gifted and Talented**

- Peer mediated strategies
- Cooperative learning groups
- Differentiated instruction

### *Presentation accommodations allow a student to:*

- Vary the method of presentation: lecture, small groups, large group, demonstration, individual experimentation
- Explore real world connections
- Use technology tools to enhance content

### *Response accommodations allow a student to:*

- Turn and Talk
- Reward risk taking while encouraging students to think "outside of the box"

### *Setting accommodations allow a student to:*

- Use flexible seating
- Have choice in seating/grouping

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

*Timing accommodations allow a student to:*

- Have flexible pacing in terms of content, assignments, and assessments
- Explore extended activities

*Scheduling accommodations allow a student to:*

- Establish a timeline for completing a project
- Have rigorous Pacing

*Organization skills accommodations allow a student to:*

- Model executive functioning
- Utilize independent skills practices

*Assignment modifications allow a student to:*

- Complete enrichment tasks
- Write longer passages on essays and open ended responses including academic vocabulary
- Answer higher order thinking questions
- Cite text evidence
- Create alternate projects or assignments, student developed rubrics, student choice when completing a project or alternate labs

*Curriculum modifications provide:*

- Topics of interest to the student and/or relevant to how the world works
- Students access to supplemental reading materials matched to individual student lexiles
- Opportunities for open-ended, self-directed activities
- Opportunities to get graded or assessed using a different standard than the one for others



Long Beach Island Consolidated School District Curriculum Guide

<b>Grade: 3</b>	<b>Content Area: Computer Science and Design Thinking</b>
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<b>Unit 3: Interacting with Technology</b>	<b>Duration: 10 Days</b>
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**Standards/Learning Targets**

**New Jersey Technology Strands:**

- 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- 8.2 Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

**New Jersey Technology Standards:**

Standard 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

CS: Computer Science 8.1.5.CS.1, 8.1.5.CS.2

NI: Network and Internet 8.1.5.NI.1

IC: Impacts of Computing 8.1.5.IC.1

DA: Data & Analysis 8.1.5.DA.1, 8.1.5.DA.2, 8.1.5.DA.3

AP: Algorithms & Programming 8.1.2.AP.18.2

Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

ED: Engineering Design 8.2.5.ED.1, 8.2.5.ED.2, 8.2.5.ED.4

ITH: Interaction of Technology and Humans 8.2.5.ITH.1, 8.2.5.ITH.2, 8.2.5.ITH.3

NT: Nature of Technology 8.2.5.NT.1, 8.2.5.NT.2

ETW: Effects of Technology on the Natural World 8.2.5.ETW.1

EC: Ethics & Culture 8.2.5.EC.1

**Primary Interdisciplinary Connections:**

**English Language Arts**

RL 3.1, RI 3.1, W.3.4,

W.3.6

**Math**

3.MD.3, 3.MD.4

**Science**

3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

### **Career Readiness, Life Literacies, and Key Skills Practices**

- Consider the environmental, social and economic impacts of decisions.
- Demonstrate creativity and innovation.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Use technology to enhance productivity, increase collaboration and communicate effectively.

### **Career Readiness, Life Literacies, and Key Skills**

9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.

9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.

9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem.

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.

9.4.5.DC.1: Explain the need for and use of copyrights.

9.4.5.DC.2: Provide attribution according to intellectual property rights guidelines using public domain or creative commons media.

9.4.5.DC.3: Distinguish between digital images that can be reused freely and those that have copyright restrictions.

9.4.5.DC.4: Model safe, legal, and ethical behavior when using online or offline technology.

9.4.5.DC.5: Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.

9.4.5.DC.6: Compare and contrast how digital tools have changed social interactions.

9.4.5.DC.7: Explain how posting and commenting in social spaces can have positive or negative consequences.

9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance.

9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.

9.4.5.IML.3: Represent the same data in multiple visual formats in order to tell a story about the data.

9.4.5.IML.4: Determine the impact of implicit and explicit media messages on individuals, groups, and society as a whole.

## Long Beach Island Consolidated School District Curriculum Guide

<b>Grade: 3</b>	<b>Content Area: Computer Science and Design Thinking</b>
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- 9.4.5.IML.5: Distinguish how media are used by individuals, groups, and organizations for varying purposes.
- 9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.IML.7: Evaluate the degree to which information meets a need including social emotional learning, academic, and social.
- 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.2: Sort and filter data in a spreadsheet to analyze findings.
- 9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.
- 9.4.5.TL.4: Compare and contrast artifacts produced individually to those developed collaboratively.
- 9.4.5.TL.5: Collaborate digitally to produce an artifact.

### Evidence of Student Learning

**Formative Tasks:**

- Teacher Observation
- Teacher Checklist
- Verbal question & answer
- Self-evaluation of performance and progress
- Class discussions
- Peer editing
- Self-evaluation

**Alternative Assessments:**

- End of Unit Project
- Portfolios
- Performance Tasks

**Summative Assessments:**

- Student participation
- Student presentation of completed project

**Benchmark Assessments:**

- Baseline SGO
- Mid-year SGO
- End of year SGO

### Knowledge & Skills

**Unit Objectives:**

Students will know...

Online cloud services are a place where we can store our files in cloud storage and share them with others.

Online services allow us many capabilities, such as adding pictures, videos, and URLs.

**Unit Objectives:**

- Students will be able to...
- Input data and text into a document.
  - Use a digital resource to format text and add graphics.
  - Explain how digital tools help us.
  - Engage in online communication with peers and students.

**Long Beach Island Consolidated School District Curriculum Guide**

<b>Grade: 3</b>	<b>Content Area: Computer Science and Design Thinking</b>
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<p>By selecting and manipulating different features of text, we can format documents to fit particular design needs. By interacting with digital tools, we can explore and utilize various resources.</p>	<ul style="list-style-type: none"> <li>● Evaluate digital resources that can assist us.</li> <li>● Collaboratively complete a task with peers using a digital platform.</li> <li>● Save and access digital files online using GSuite tools.</li> <li>● Communicate via digital tools.</li> <li>● Interpret visual online information and demonstrate understanding.</li> <li>● Explore weather data to create a digital weather report and graph.</li> </ul>
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<p><b>Enduring Understandings:</b> Students will understand that...</p> <ul style="list-style-type: none"> <li>● Digital tools can help us communicate ideas and solutions</li> <li>● Digital tools can help us work efficiently and collaboratively.</li> </ul>	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>● What is a document?</li> <li>● How do I format documents?</li> <li>● How do I change the font?</li> <li>● How do I change the font size?</li> <li>● How do I change the text color and the text background color?</li> <li>● How do I bold, italicize or underline text?</li> <li>● How do I insert a link into a document?</li> <li>● How do I create a list?</li> <li>● How do I align text?</li> <li>● How do I share my document with others?</li> <li>● How do I navigate in a digital environment?</li> <li>● How do I edit text on documents to remove and/or insert other text?</li> <li>● How do I drag an item?</li> <li>● How do I use drop down boxes?</li> </ul>
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**Core Instructional & Supplemental Materials**

<p><b>Suggested Activities/Resources:</b></p> <ul style="list-style-type: none"> <li>● Create a graph of weather data <a href="#">NCES Kids' Zone Test Your Knowledge</a></li> <li>● Use World Book Online and other teacher approved web resources to demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).</li> <li>● Create collaborative presentation to</li> </ul>	<p><b>Varied Levels of Text:</b></p> <ul style="list-style-type: none"> <li>● Rabe, T. (2004). <u>Oh say can you say what's the weather today?: All about weather</u></li> <li>● Gibbons, G. (1993). <u>Weather forecasting.</u></li> <li>● Dean. J. (2013). <u>Freddy the frogcaster</u></li> <li>● DeWitt, L. (2015). <u>What will the</u></li> </ul>
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## Long Beach Island Consolidated School District Curriculum Guide

Grade: 3

Content Area: Computer Science and Design Thinking

- inform others about climate change
- KidPix
- BrainPopJr.
- Google Earth
- G-Suite
- Gmail
- [Tools and videos](#) code.org video library
- [www.lbischools.org](http://www.lbischools.org)
- [www.scholastic.com](http://www.scholastic.com)
- [www.readingeggs.com](http://www.readingeggs.com)
- [Safety in My Online Neighborhood | Common Sense Education](#)
- [Media Balance Is Important | Common Sense Education](#)
- [Pause for People | Common Sense Education](#)

- weather be?
- Singer, M. (2001). On the same day in March: A tour of the world's weather
- Cyber Safety Simply: A Cautionary Picture Book by Dee Smith
- Webster's Email by Hannah Whaley
- Webster's Friend by Hannah Whaley
- Webster's Manners by Hannah Whaley
- Webster's Bedtime by Hannah Whaley
- But It's Just a Game by Julia Cook
- The Technology Tail by Julia Cook
- Chicken Clicking by Jeanne Willis
- Troll Stinks by Jeanne Willis
- #Goldilocks by Jeanne Willis
- Nerdy Birdy Tweets by Aaron Reynolds
- Once Upon a Time Online by David Belford

### Accommodations/Modifications

#### English Language Learners

- Collaborate with ELL department to make necessary modifications for students
- Provide translated material
- Provided differentiation for students as needed
- Use student helpers and cooperative learning
- Use visual aids
- Rephrase vocabulary
- Allow for alternate forms of responses

#### Special Education/504 Plans/Students with Disabilities:

- Provide differentiated instruction as needed
- Follow all IEP modifications/504 plan
- Provide manipulatives or the opportunity to draw solution strategies
- Shorten assignments to focus on mastery of key concepts
- Restate, reword and clarify directions
- Lessen the amount of information presented
- Allow for alternate forms of responses
- Increase eye contact

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

- Maintain close proximity
- Attention techniques
- Sound, mouse or screen modifications

### **Students at Risk of Failure:**

- Make sure children feel welcome and comfortable while being discrete
- Help to provide basic needs while the child is in school (food, clothing, etc)
- Provide resources for basic needs outside of school (medical, shelter, food, etc)
- Pair with adult mentor or buddy
- Rephrase vocabulary
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences

### **Economically Disadvantaged:**

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Perspective and experiences of the children need to be considered
- Create ways for students to share their emotions
- Give every student the same opportunity for success.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.
- Daily affirmations
- Asking to hear students' hopes and offering reinforcements of those hopes
- Telling students why they can succeed

### **Culturally Diverse:**

- Involve families in student learning
- Provide social/emotional support
- Recognize native languages and cultures
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary

### **Gifted and Talented**

- Peer mediated strategies
- Cooperative learning groups
- Differentiated instruction

*Presentation accommodations allow a student to:*

- Vary the method of presentation: lecture, small groups, large group, demonstration, individual experimentation
- Explore real world connections
- Use technology tools to enhance content

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

*Response accommodations allow a student to:*

- Turn and Talk
- Reward risk taking while encouraging students to think “outside of the box”

*Setting accommodations allow a student to:*

- Use flexible seating
- Have choice in seating/grouping

*Timing accommodations allow a student to:*

- Have flexible pacing in terms of content, assignments, and assessments
- Explore extended activities

*Scheduling accommodations allow a student to:*

- Establish a timeline for completing a project
- Have rigorous Pacing

*Organization skills accommodations allow a student to:*

- Model executive functioning
- Utilize independent skills practices

*Assignment modifications allow a student to:*

- Complete enrichment tasks
- Write longer passages on essays and open ended responses including academic vocabulary
- Answer higher order thinking questions
- Cite text evidence
- Create alternate projects or assignments, student developed rubrics, student choice when completing a project or alternate labs

*Curriculum modifications provide:*

- Topics of interest to the student and/or relevant to how the world works
- Students access to supplemental reading materials matched to individual student lexiles
- Opportunities for open-ended, self-directed activities
- Opportunities to get graded or assessed using a different standard than the one for others

Long Beach Island Consolidated School District Curriculum Guide

<b>Grade: 3</b>	<b>Content Area: Computer Science and Design Thinking</b>
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<b>Unit 4: Using Technology to Improve Our World</b>	<b>Duration: 10 Days</b>
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**Standards/Learning Targets**

**New Jersey Technology Strands:**

- 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- 8.2 Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

**New Jersey Technology Standards:**

Standard 8.1 Computer Science: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

CS: Computer Science 8.1.5.CS.1

NI: Network and Internet 8.1.5.NI.1

IC: Impacts of Computing 8.1.5.IC.1 DA: Data & Analysis 8.1.5.DA.1

AP: Algorithms & Programming 8.1.5.AP.1

8.2 Design Thinking: All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

ED: Engineering Design 8.2.5.ED.1, 8.2.5.ED.2, 8.2.5.ED.3, 8.2.5.ED.4

ITH: Interaction of Technology and Humans 8.2.5.ITH.1, 8.2.5.ITH.2, 8.2.5.ITH.3, 8.2.5.ITH.4, 8.2.5.ITH.5

NT: Nature of Technology 8.2.5.NT.1, 8.2.5.NT.2

ETW: Effects of Technology on the Natural World 8.2.5.ETW.1, 8.2.5.ETW.2, 8.2.5.ETW.3, 8.2.5.ETW.4

EC: Ethics & Culture 8.2.5.EC.1

**Primary Interdisciplinary Connections:**

**English Language Arts**

RL 3.1, RI 3.1

W.3.4, W.3.6

**Math**

3.MD.3, 3.MD.4

**Science**

Design nature-inspired solutions to a student-identified problem faced by humans. (3-5



## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

ETS1-1, 3-5 ETS1-2, 3-5 ETS1-3)

3-ESS3-1 Make a claim about the merit of a design solution that reduces the impacts of a weather related hazard.

3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem

### **Career Readiness, Life Literacies, and Key Skills Practices**

- Demonstrate creativity and innovation.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Use technology to enhance productivity, increase collaboration and communicate effectively.
- Consider the environmental, social and economic impacts of decisions
- Act as a responsible and contributing community member and student

### **Career Readiness, Life Literacies, and Key Skills Practices**

- 9.4.5.Cl.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.
- 9.4.5.Cl.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.
- 9.4.5.Cl.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems
- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.DC.1: Explain the need for and use of copyrights.
- 9.4.5.DC.2: Provide attribution according to intellectual property rights guidelines using public domain or creative commons media.

## Long Beach Island Consolidated School District Curriculum Guide

**Grade: 3**

**Content Area: Computer Science and Design Thinking**

- 9.4.5.DC.3: Distinguish between digital images that can be reused freely and those that have copyright restrictions.
- 9.4.5.DC.4: Model safe, legal, and ethical behavior when using online or offline technology.
- 9.4.2.CT.1: Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem
- 9.4.2.DC.7: Describe actions peers can take to positively impact climate change
- 9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data.
- 9.4.5.DC.5: Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- 9.4.5.DC.6: Compare and contrast how digital tools have changed social interactions.
- 9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance.
- 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- 9.4.5.IML.3: Represent the same data in multiple visual formats in order to tell a story about the data.
- 9.4.5.IML.4: Determine the impact of implicit and explicit media messages on individuals, groups, and society as a whole.
- 9.4.5.IML.5: Distinguish how media are used by individuals, groups, and organizations for varying purposes.
- 9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- 9.4.5.IML.7: Evaluate the degree to which information meets a need including social emotional learning, academic, and social.
- 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- 9.4.5.TL.2: Sort and filter data in a spreadsheet to analyze findings.
- 9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.
- 9.4.5.TL.4: Compare and contrast artifacts produced individually to those developed collaboratively.
- 9.4.5.TL.5: Collaborate digitally to produce an artifact.

**Evidence of Student Learning**

**Long Beach Island Consolidated School District Curriculum Guide**

<b>Grade: 3</b>	<b>Content Area: Computer Science and Design Thinking</b>
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<p><b>Formative Tasks:</b></p> <ul style="list-style-type: none"> <li>● Teacher Observation</li> <li>● Teacher Checklist</li> <li>● Verbal question &amp; answer</li> <li>● Self-evaluation of performance and progress</li> <li>● Class discussions</li> <li>● Peer editing</li> <li>● Self-evaluation</li> </ul>	<p><b>Alternative Assessments:</b></p> <ul style="list-style-type: none"> <li>● End of Unit Project</li> <li>● Portfolios</li> <li>● Performance Tasks</li> </ul>
<p><b>Summative Assessments:</b></p> <ul style="list-style-type: none"> <li>● Student participation</li> <li>● Student presentation of completed project</li> </ul>	<p><b>Benchmark Assessments:</b></p> <ul style="list-style-type: none"> <li>● Baseline SGO</li> <li>● Mid-year SGO</li> <li>● End of year SGO</li> </ul>

<b>Knowledge &amp; Skills</b>
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<p><b>Unit Objectives:</b> Students will know...</p> <ul style="list-style-type: none"> <li>● How to use technology to help improve their world and for future generations.</li> </ul>	<p><b>Unit Objectives:</b> Students will be able to...</p> <ul style="list-style-type: none"> <li>● Students will collaborate together to discuss the environment and the ways to help improve situations.</li> <li>● Students will learn about the differences between reuse, recycle or re-purpose.</li> <li>● Students will discuss different technologies available to help improve the environment and their community.</li> <li>● Students will use graphic organizers to organize data and present results and solutions on how they can help the environment.</li> </ul>
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<p><b>Enduring Understandings:</b> Students will understand that...</p> <ul style="list-style-type: none"> <li>● Technology can be used to collect data which can help improve the environment and local community</li> </ul>	<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>● How can technology be used to help the environment?</li> <li>● What technology can we use to reuse, repurpose or recycle?</li> <li>● How can we use technology to help improve our community and environment?</li> </ul>
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**Long Beach Island Consolidated School District Curriculum Guide**

<b>Grade: 3</b>	<b>Content Area: Computer Science and Design Thinking</b>
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	<ul style="list-style-type: none"> <li>• How do I use data collected from technology to help improve the environment?</li> </ul>
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<b>Core Instructional &amp; Supplemental Materials</b>	
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<p><b>Suggested Activities/Resources:</b></p> <ul style="list-style-type: none"> <li>• Create computational artifact (image, picture, audio, video or multimedia presentation)</li> <li>• Build a schoolyard habitat to see what improvements need to be made to guard plants, animals and humans from the effects of a warming planet</li> <li>• Research solutions to climate change or weather related hazards and create collaborative digital presentation</li> <li>• Calculate daily water usage <a href="#">Water Q&amp;A: How much water do I use at home each day?</a></li> <li>• <a href="#">Taking Care of Our Environment   MyPBLWorks</a></li> <li>• <a href="#">Rain or Shine   MyPBLWorks</a></li> <li>• <a href="#">energyTeach About Climate Change</a></li> <li>• <a href="#">NASA Climate Kids</a></li> <li>• Recycling Project</li> <li>• Protecting open spaces project</li> <li>• Cleaning waterways project</li> <li>• Collaboration with subject-matter teachers and specialists.</li> <li>• Use World Book Online and other teacher approved web resources to demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).</li> <li>• <a href="#">Tools and videos</a> Code.org video library</li> <li>• KidPix</li> <li>• BrainPopJr.</li> <li>• Google Earth</li> <li>• G-Suite</li> <li>• Gmail</li> <li>• <a href="http://www.scholastic.com">www.scholastic.com</a></li> <li>• <a href="http://www.readingeggs.com">www.readingeggs.com</a></li> <li>• <a href="#">Just for Kids: What's Climate Change?</a></li> </ul>	<p><b>Varied Levels of Text:</b></p> <ul style="list-style-type: none"> <li>• Nivola, C. (2008). "Planting the trees of Kenya: The story of Wangari Mathaai."</li> <li>• Rose, C. (2015). "Over in the wetlands: A hurricane-on-the-bayou story."</li> <li>• Simon, S. (2001). "Tornadoes."</li> <li>• Kamkwamba, W &amp; Mealer, B. (2012). "The boy who harnessed the wind. "</li> <li>• Beaty, A. (2013). "Rosie Revere, engineer"</li> <li>• Drummond, A. (2015). "Energy island: How one community harnessed the wind and changed their world"</li> <li>• Spires, A. (2014). "The most magnificent thing"</li> <li>• Bang, M. &amp; Chisholm, P. (2014). "Buried sunlight: How fossil fuels have changed the earth."</li> <li>• Rockwell, A. (2009). "What's so bad about gasoline? Fossil fuels and what they do."</li> </ul>
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## Long Beach Island Consolidated School District Curriculum Guide

Grade: 3

Content Area: Computer Science and Design Thinking

- [And What Can I Do?](#)
- [Learning and Teaching about the Environment | US EPA](#)

### Accommodations/Modifications

#### English Language Learners

- Collaborate with ELL department to make necessary modifications for students
- Provide translated material
- Provided differentiation for students as needed
- Use student helpers and cooperative learning
- Use visual aids
- Rephrase vocabulary
- Allow for alternate forms of responses

#### Special Education/504 Plans/Students with Disabilities:

- Provide differentiated instruction as needed
- Follow all IEP modifications/504 plan
- Provide manipulatives or the opportunity to draw solution strategies
- Shorten assignments to focus on mastery of key concepts
- Restate, reword and clarify directions
- Lessen the amount of information presented
- Allow for alternate forms of responses
- Increase eye contact
- Maintain close proximity
- Attention techniques
- Screen, mouse and/or sound Modification
- Adaptive resources

#### Students at Risk of Failure:

- Make sure children feel welcome and comfortable while being discrete
- Help to provide basic needs while the child is in school (food, clothing, etc)
- Provide resources for basic needs outside of school (medical, shelter, food, etc)
- Pair with adult mentor or buddy
- Rephrase vocabulary
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences

#### Economically Disadvantaged:

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Perspective and experiences of the children need to be considered

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- Create ways for students to share their emotions
- Give every student the same opportunity for success.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.
- Daily affirmations
- Asking to hear students' hopes and offering reinforcements of those hopes
- Telling students why they can succeed

### **Culturally Diverse:**

- Involve families in student learning
- Provide social/emotional support
- Recognize native languages and cultures
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary

### **Gifted and Talented**

- Peer mediated strategies
- Cooperative learning groups
- Differentiated instruction

### *Presentation accommodations allow a student to:*

- Vary the method of presentation: lecture, small groups, large group, demonstration, individual experimentation
- Explore real world connections
- Use technology tools to enhance content

### *Response accommodations allow a student to:*

- Turn and Talk
- Reward risk taking while encouraging students to think "outside of the box"

### *Setting accommodations allow a student to:*

- Use flexible seating
- Have choice in seating/grouping

### *Timing accommodations allow a student to:*

- Have flexible pacing in terms of content, assignments, and assessments
- Explore extended activities

### *Scheduling accommodations allow a student to:*

- Establish a timeline for completing a project
- Have rigorous Pacing

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*Organization skills accommodations allow a student to:*

- Model executive functioning
- Utilize independent skills practices

*Assignment modifications allow a student to:*

- Complete enrichment tasks
- Write longer passages on essays and open ended responses including academic vocabulary
- Answer higher order thinking questions
- Cite text evidence
- Create alternate projects or assignments, student developed rubrics, student choice when completing a project or alternate labs

*Curriculum modifications provide:*

- Topics of interest to the student and/or relevant to how the world works
- Students access to supplemental reading materials matched to individual student lexiles
- Opportunities for open-ended, self-directed activities
- Opportunities to get graded or assessed using a different standard than the one for others