

HISD | Academic Instructional Technology

EMPOWERING EDUCATION EVERY DAY

2021-22 Scope and Sequence Technology Applications – Grade 8

Cycle 1	27 Days	<i>The recommended number of days/lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
	Aug 23 - Oct 1	
Overview		
<p>Online Safety & Digital Citizenship: Online Safety & Digital Citizenship curriculum teaches students to become safer by educating them about online safety, the responsible use of technology and digital fair use rules.</p> <p>Online Safety & Digital Citizenship (formerly Internet Use and Online Communications): The Internet Usage and Online Communication unit teaches students vital skills for successfully navigating and searching the World Wide Web such as browsing basics, keyword searches, research strategies, information sourcing and ethics, and examination of information validity. Students also learn the basics of online communication such as email, instant messaging, blogs, community sites, podcasting, and digital collaboration.</p>		
Topic(s)	Suggested Pacing and Lesson(s)	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Online Safety & Digital Citizenship Weeks 1-6	<p>Week 1: Lab Rules</p> <p>Logging in to Learning.com</p> <p>LCOM (Skills Check- Pre) Online Safety Pre- Skills Check- Level MS (15Min)</p> <p>Week 2: LCOM (L) Online Safety: Digital Citizenship (15Min)</p> <p>LCOM (L) Online Safety: Dealing with Cyberbullying (15Min)</p> <p>Week 3: Common Sense Education via LCOM (L) Sexting and Relationships (45 min) *Stand-alone Student Video included for student direct access & viewing (4 min)</p>	<p>Online Safety and Digital Citizenship::</p> <p>8.1. Creativity and innovation. The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and create products. The student is expected to: (C) explore complex systems or issues using models, simulations, and new technologies to make predictions, modify input, and review results;</p> <p>8.2. Communication and collaboration. The student collaborates and communicates both locally and globally to reinforce and promote learning. The student is expected to: (A) create personal learning networks to collaborate and publish with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies; (B) communicate effectively with multiple audiences using a variety of media and formats;</p> <p>8.5. Digital citizenship. The student practices safe, responsible, legal, and ethical behavior while using technology tools and resources. The student is expected to: (A) understand copyright principles, including current laws, fair use guidelines, creative commons, open source, and public domain; (B) practice ethical acquisition of information and standard methods for citing sources; (C) practice safe and appropriate online behavior, personal security guidelines, digital identity, digital etiquette, and acceptable use of technology; and (D) understand the negative impact of inappropriate technology use, including online bullying and harassment, hacking, intentional virus setting, invasion of privacy, and piracy such as software, music, video, and other media; (G) demonstrate effective file management strategies such as file naming conventions, location, backup, hierarchy, folder structure, file conversion, tags, labels, and emerging digital organizational strategies;</p>



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	<p>Week 4: Common Sense Education via LCOM (L) Responding to Online Hate Speech (45 min)</p> <p>Week 5: LCOM (Skills Check- Post) Online Safety & Digital Citizenship Post Skills Check- Level MS (15 min)</p> <p>LCOM (Skills Check- Pre) Internet Usage & Online Communications Pre-Skills Check- Level MS (15 min)</p> <p>Week 6: LCOM (L) Internet Usage: Navigating the World Wide Web (15 min)</p> <p>LCOM (L) Online Communication: Online Personal Communication (15 min)</p> <p>LCOM (L) Online Communication: Sharing Safely Online (15 min)</p>	
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Vocabulary

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
communication cyberbully netiquette safety ethical technology online acceptable use	photo sharing communication digital citizenship digital footprint acronyms link emoticons password tag profile page	red flag feeling self-disclosure sexting	hate speech cyberbullying anonymous	none	online searching internet digital technology browsing etiquette blogs personal learning network ethics

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	<p>texting instant messaging post privacy settings privacy settings bully/bullying digital media cyberbullying reputation chat room online communication cyberbully email cell phones online games instant messaging social networks texting social networking posting</p>				<p>URL website World Wide Web keyword search category search search engine</p>
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Cycle 2	29 Days	<i>The recommended number of days/lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
	Oct 5 – Nov 12	
Overview		
<p>Online Safety & Digital Citizenship (formerly Internet Use and Online Communications): The Internet Usage and Online Communication unit teaches students vital skills for successfully navigating and searching the World Wide Web such as browsing basics, keyword searches, research strategies, information sourcing and ethics, and examination of information validity. Students also learn the basics of online communication such as email, instant messaging, blogs, community sites, podcasting, and digital collaboration.</p> <p>Keyboarding: Adaptive Keyboarding will assess student’s typing strengths and prescribe custom typing activities to meet their individual needs.</p>		
Topic(s)	Suggested Pacing and Lesson(s)	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Online Safety and Digital Citizenship Weeks 1-6	<p>Week 1: LCOM (L) Prep for Online Learning: Commenting in the Virtual Classroom (10 min)</p> <p>LCOM (L) Online Communication: Sharing and collaborating Online (15 min)</p> <p>Introduce LCOM Adaptive Keyboarding: Urban Explorer (10 min)</p> <p>Week 2: Common Sense Education via LCOM (L) The Power of Digital Footprints <i>Student video included for personal viewing</i> (1 min) (45 min)</p> <p>Week 3: Common Sense Education via LCOM (L) Being Aware of What You Share (45 min)</p>	<p>Online Safety and Digital Citizenship (formerly Internet Use and Online Communications): 8.1. Creativity and innovation. The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and create products. The student is expected to: (C) explore complex systems or issues using models, simulations, and new technologies to make predictions, modify input, and review results; 8.6. Technology operations and concepts. The student demonstrates a thorough understanding of technology concepts, systems, and operations. The student is expected to: (A) define and use current technology terminology appropriately; (G) demonstrate effective file management strategies such as file naming conventions, location, backup, hierarchy, folder structure, file conversion, tags, labels, and emerging digital organizational strategies;</p> <p>Keyboarding: 8.2. Communication and collaboration. The student collaborates and communicates both locally and globally to reinforce and promote learning. The student is expected to: (A) participate in personal learning networks to collaborate with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies; (C) read and discuss examples of technical writing; 8.4. Critical thinking, problem solving, and decision making. The student makes informed decisions by applying critical-thinking and problem-solving skills. The student is expected to: (A) identify and define relevant problems and significant questions for investigation; (C) collect and analyze data to identify solutions and make informed decisions; (E) make informed decisions and support reasoning. 8.6. Technology operations and concepts. The student demonstrates a thorough understanding of technology concepts, systems, and operations. The student is expected to: (J) use a variety of local and remote input sources; (K) use keyboarding techniques and ergonomic strategies while building speed and accuracy;</p>



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	<p>Week 4: LCOM (L) Internet Usage: Being a Global Citizen with Mapping Tools (15 min)</p> <p>LCOM (L) Online Communication: Using Personal Learning Networks (15 min)</p> <p>LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>Week 5: LCOM (L) Online Communication: Communicating with Instant Messaging (15 min)</p> <p>LCOM (L) Online Communication: Reading and Writing Blogs (18 min)</p> <p>LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>Week 6: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (L) Internet Usage: Effective Search Strategies (15 min)</p> <p>LCOM (Post Skills Check) Internet Use and Online Communications Post-Skills Check- Level MS (15 min)</p>	<p>(L) create and edit files with productivity tools, including: (L.i) a word processing document using digital typography standards such as page layout, font formatting, paragraph formatting, and list attributes; (L.iv) a digital publication using relevant publication standards; (M) plan and create non-linear media projects using graphic design principles</p>
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Vocabulary					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
commenting virtual private message messaging cyberbullying announcements netiquette speaking ethical use of technology writing integrate share collaborate communicate multimedia online safety online community access community site publish evaluate	common sense education invisible audience digital footprint persistent	common sense education privacy settings privacy policy opt out privacy terms of service cookies	Global Position System distance map GPS global citizen directions aerial view mapping software satellite view transportation mode street view embed navigation digital environment digital tools Internet digital collaboration wiki learning community personal learning network digital device software hardware	Online safety netiquette IM Internet punctuation collaborate instant message contact list password Internet safety emoticon responsible use writing post Web log collaboration security information technology audience domain societal issues communication blog cultural issues online security ethical issues	category search search engine keyword web page online privacy keyword search World Wide Web website online safety



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Cycle 3	30 Days	<i>The recommended number of days/lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
	Nov 15 – Jan 14	

Overview

Business Applications (formerly Word Processing): Students learn the essentials of word processing such as word processing basics, formatting, proofreading, spelling and grammar tools, and complete activities such as poem creation, and advanced report writing. Student can also play word processing games and take quizzes to test check their knowledge of these essential skills.

Business Applications (formerly Presentations): Students learn basic presentation skills and use of common presentation software titles. Topics include presenting to audiences, slide organization, and design and special effects. Students then practice their skills in presentation activities, with topics including natural resources, animal habitats, and interesting inventions.

Topic(s)	Suggested Pacing and Lesson(s)	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Business Applications (formerly Word Processing) Week 1-4	<p>Week 1: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (Skills Check- Pre) Word Processing Pre-Skills Check- Level MS (15 min)</p> <p>LCOM (L) Word Processing: Creating Professional Documents (15 min)</p> <p>Week 2: LCOM (L) Word Processing: Creating Original Works (45 min)</p> <p>Week 3: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (L) Word Processing: Finding Alternative Solutions to Problems (15 min)</p>	<p>Business Applications (formerly Word Processing): 8.2. Communication and collaboration. The student collaborates and communicates both locally and globally to reinforce and promote learning. The student is expected to: (A) participate in personal learning networks to collaborate with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies; (C) read and discuss examples of technical writing; 8.4. Critical thinking, problem solving, and decision making. The student makes informed decisions by applying critical-thinking and problem-solving skills. The student is expected to: (A) identify and define relevant problems and significant questions for investigation; (C) collect and analyze data to identify solutions and make informed decisions; (E) make informed decisions and support reasoning. 8.6. Technology operations and concepts. The student demonstrates a thorough understanding of technology concepts, systems, and operations. The student is expected to: (J) use a variety of local and remote input sources; (K) use keyboarding techniques and ergonomic strategies while building speed and accuracy; (L) create and edit files with productivity tools, including: (L.i) a word processing document using digital typography standards such as page layout, font formatting, paragraph formatting, and list attributes; (L.iv) a digital publication using relevant publication standards; (M) plan and create non-linear media projects using graphic design principles</p> <p>Business Applications (formerly Presentations): 8.1. Creativity and innovation. The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and create products. The student is expected to: (B) create original works as a means of personal or group expression 8.2. Communication and collaboration. The student collaborates and communicates both locally and globally to reinforce and promote learning. The student is expected to: (A) participate in personal learning networks to collaborate with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies; (C) read and discuss examples of technical writing;</p>

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<p>Business Applications (formerly Presentation) Weeks 5-6</p>	<p>LCOM (L) Word Processing: Visual Design (15 min)</p> <p>Week 4: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (L) Word Processing: Formatting Essays Using MLA (15 min)</p> <p>LCOM (Skills Check- Post) Word Processing Post Skills Check- Level MS (15 min)</p> <p>Week 5: LCOM (Skills Check- Pre) Presentations Pre-Skills Check Level MS (15 min)</p> <p>LCOM (L) Presentations: Basic Slideshow Elements (15 min)</p> <p>LCOM (L) Presentations: Consistency and Visual Design (15 min)</p> <p>Week 6: Presentations: LCOM (L) Motion Design (15 min)</p> <p>LCOM (L) Presentations: Designing Non-Linear Presentations (15 min)</p> <p>Students explore HISD Word Processing Environment at teacher's direction (10 min)</p>	
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Vocabulary					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
proofread collaborative bullets semi-colon review tab spelling en dash typo word processing ribbon toolbar subject conjunction documents em dash punctuation verb comma splice sentence fragment comma grammar Autocorrect	word processing original work interpret information generate ideas make decisions digital environment group expression media technology systems apply existing knowledge technology concepts draw conclusions publish individual expression create original works collaborate technology operations	visual contrast portrait orientation alignment borders communication aesthetics page layout collaborative spacing word processing margins graphic design color documents landscape orientation ribbon toolbar problem solving decision making perspective diverse perspectives multiple processes solutions finding solutions alternative solutions	citation formatting bibliography documents footers ribbon toolbar works cited MLS format readability essay endnotes design page breaks footnotes word processing spacing headers references tab plagiarism	design slide background presentation image slide show layout template design element graphics text	graphics design presentation audience slide show image background slide layout design element focus design element presentation non-linear presentation design hyperlink slide show linear presentation slide



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Cycle 4	27 Days	<i>The recommended number of days/lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
	Jan 19 – Feb 25	

Overview

Business Applications (formerly Presentations): Students learn basic presentation skills and use of common presentation software titles. Topics include presenting to audiences, slide organization, and design and special effects. Students then practice their skills in presentation activities, with topics including natural resources, animal habitats, and interesting inventions.

Business Applications (formerly Spreadsheets & Databases): Students are introduced to spreadsheets and their many uses in this unit. Students learn basics like creating basic tables of data, data formatting, formulas, and creating various graphs. Students then practice their spreadsheet skills using data from real-life situations.

Keyboarding: Adaptive Keyboarding will assess student’s typing strengths and prescribe custom typing activities to meet their individual needs.

Topic(s)	Suggested Pacing and Lesson(s)	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Business Applications Weeks 1-6	<p>Week 1</p> <p>LCOM (Skills Checks- Post) Presentations Post Skills Check- Level MS (15 min)</p> <p>LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (Skills Checks- Pre) Spreadsheets & Databases Pre- Skills Check - Level MS (15 min)</p> <p>Week 2</p> <p>LCOM (L) Spreadsheets: Parts and Navigation (15 min)</p> <p>LCOM (L) Spreadsheets: Basic Formatting (15 min)</p> <p>LCOM (L) Spreadsheets: Analyzing Data (15 min)</p> <p>Week 3</p> <p>LCOM (L) Spreadsheets: Formulas</p>	<p>Business Applications (formerly Presentations):</p> <p>8.1. Creativity and innovation. The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and create products. The student is expected to: (B) create original works as a means of personal or group expression</p> <p>8.2. Communication and collaboration. The student collaborates and communicates both locally and globally to reinforce and promote learning. The student is expected to: (A) participate in personal learning networks to collaborate with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies; (C) read and discuss examples of technical writing;</p> <p>Business Applications (formerly Spreadsheets & Databases):</p> <p>8.1. Creativity and innovation. The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and create products. The student is expected to: (C) explore complex systems or issues using models, simulations, and new technologies to make predictions, modify input, and review results;</p> <p>8.4. Critical thinking, problem solving, and decision making. The student makes informed decisions by applying critical-thinking and problem-solving skills. The student is expected to: (A) identify and define relevant problems and significant questions for investigation; (E) make informed decisions and support reasoning;</p> <p>8.6. Technology operations and concepts. The student demonstrates a thorough understanding of technology concepts, systems, and operations. The student is expected to: (K) use keyboarding techniques and ergonomic strategies while building speed and accuracy; (L) create and edit files with productivity tools, including: (L.i) a word processing document using digital typography standards such as page layout, font formatting, paragraph formatting, and list attributes;</p>



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	<p>(15 min)</p> <p>LCOM (L) Spreadsheets: Functions (15 min)</p> <p>LCOM (L) Sharing and Filtering (15 min)</p> <p>Week 4 LCOM (L) Spreadsheets: Trends and Forecasts (15 min)</p> <p>LCOM (AE) Cell Phone Usage (30 min)</p> <p>Week 5: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (L) Databases: Creating and Maintaining a Database (25 min)</p> <p>Week 6 LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (20 min)</p> <p>LCOM (Skills Check- Post) Spreadsheets & Databases Post Skills Check- Level MS (15 min)</p>	<p>(L.ii) a spreadsheet workbook using basic computational and graphic components such as basic formulas and functions, data types, and chart generation.</p>
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Vocabulary

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
none	column spreadsheet cell row	row summation function column relative reference	graph trend/ trend line chart data analysis	filter page orientation mail merge data	statistics logic directory data



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	cell address data summation function cell alignment sort function cell justification border formatting fill color table bar graph line graph spreadsheet graph pie chart	spreadsheet cell name absolute reference copy / paste cell formula function tool summation function numerical formula library cell range function filters data freezing panes scrolling cloud computing wrap text spreadsheet	variable data forecast Word problems Problem solving Equations Data tables Graphs	table report Boolean operator query data analysis sort database page layout data table field record	boolean catalog retrieve locate
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Cycle 5	33 Days	<i>The recommended number of days/lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
	Feb 28 – Apr 22	
Overview		
Multimedia- Students learn to express their ideas through graphic design, desktop publishing and video editing.		
Online Safety and Digital Citizenship (formerly Media Balance):- What is your strategy for finding media balance? Most of us use a lot of digital media in our daily lives -- even when we do not realize it! Having a balance between online and offline time is important, but healthy media balance might look different for everyone. Help students create a personalized plan for healthy media use.		
Topic(s)	Suggested Pacing and Lesson(s)	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Multimedia Weeks 1-5	<p>Week 1: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (Skills Checks- Pre) Multimedia Pre-Skills Check- Level MS (15 min)</p> <p>LCOM (L) Multimedia: Creating and Enhancing Images and Graphics (15 min)</p> <p>Week 2: LCOM Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (L) Multimedia: Designing Documents with Desktop Publishing (15 min)</p> <p>Introduce LCOM (L) Multimedia: Creating and Editing Video and Audio (15 min)</p>	<p>Multimedia: 8.6- Technology operations and concepts. The student demonstrates a thorough understanding of technology concepts, systems, and operations. The student is expected to: (L) Create and edit files with productivity tools, including: (L.iv) A digital publication using relevant publication standards.</p> <p>Online Safety and Digital Citizenship formerly Media Balance): 8.4 Critical thinking, problem solving and decision making. The student makes informed decisions by applying critical- thinking and problem-solving skills. The student is expected to: (A) identify and define relevant problems and significant questions for investigation; (B) plan and manage activities to develop a solution, design a computer program, or complete a project; (E) make informed decisions and support reasoning; (F) transfer current knowledge to the learning of newly encountered technologies.</p>



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<p>Online Safety and Digital Citizenship Week 6</p>	<p>Week 3: LCOM (AE) Storytelling Through Film (40 min)</p> <p>Week 4: LCOM (AE) Storytelling Through Film cont. (40 min)</p> <p>Week 5: Adaptive Keyboarding: Urban Keyboarding Explorer (10 min)</p> <p>LCOM (Skills Check- Post) Multimedia Post-Skills Check- Level MS (15 min)</p> <p>Week 6: Common Sense Education via LCOM (L) Digital Media and Your Brain (45 min) <i>Student video included for individual student viewing (4 min)</i></p>	
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Vocabulary

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
crop digital image layers graphics file compression drawing software export file vector image image resolution bitmap image file format aspect ratio graphics software filter pixel	social studies figurative language reflection language arts culture graphics software social studies reading strategies mapping graphic software language arts	film technology video audio English language arts short stories	rotate white space margins crop desktop publishing environment template eco-friendly columns graphics alignment image logo textbox	desktop publishing column guides gutter guides layout design graphic elements white space templates	common sense education feedback loop humane design addictive design habit



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Cycle 6	31 Days	<i>The recommended number of days/lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
	Apr 25 – June 7	
Overview		
Computer Science (formerly Computational Thinking and Coding Basics): This unit contains items that help students develop computational thinking skills in preparation for learning to write code and solve other problems. It also includes introductory coding instruction with the initial lessons from EasyCode Pillars.		
Topic(s)	Suggested Pacing and Lesson(s)	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Computer Science Weeks 1-6	<p>Week 1: LCOM (Skills Checks- Pre) Computational Thinking Pre-Skills Check- Level MS (15 min)</p> <p>LCOM (L) Computational Thinking: Models and Simulations (15 min)</p> <p>LCOM (L) Computational Thinking: Implement and Test (15 min)</p> <p>Week 2: Introduce & Start LCOM (AE) Egg-cellent Egg (40 min)</p> <p>Week 3: Finish LCOM (AE) Egg-cellent Egg (30 min)</p> <p>LCOM (Skills Check- Post) Computational Thinking Post-Skills Check- Level MS (15 min)</p> <p>Week4: LCOM (L) Coding: Building Your First Program (40 min)</p>	<p>Computer Science (formerly Computational Thinking and Coding Basics):</p> <p>8.2. Communication and collaboration. The student collaborates and communicates both locally and globally to reinforce and promote learning. The student is expected to: (A) participate in personal learning networks to collaborate with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies;</p> <p>8.4. Critical thinking, problem solving, and decision making. The student makes informed decisions by applying critical-thinking and problem-solving skills. The student is expected to: (A) identify and define relevant problems and significant questions for investigation; (E) make informed decisions and support reasoning</p> <p>8.6. Technology operations and concepts. The student demonstrates a thorough understanding of technology concepts, systems, and operations. The student is expected to: (A) define and use current technology terminology appropriately; (F) understand troubleshooting techniques such as restarting systems, checking power issues, resolving software compatibility, verifying network connectivity, connecting to remote resources, and modifying display properties; (L) create and edit files with productivity tools, including: (L.ii) a spreadsheet workbook using basic computational and graphic components such as basic formulas and functions, data types, and chart generation</p>



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	<p>Week 5: Continue LCOM (L) Coding: Building Your First Program (40 min)</p> <p>Week 6: LCOM (L) Coding: Codesters in Space (Assign remaining Codesters lessons for Summer)</p>	
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Vocabulary

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
algorithm abstraction models problem solving processes flowcharts structures data models patterns prototypes simulations variables parallel tasks functions sub-programs simplify incremental testing	Use-modify-create method Problem solving effectiveness	Use-modify- create method Problem solving effectiveness	programming stage sprite bug toolkit debugging parentheses coding command double quotes	programming stage sprite bug toolkit debugging parentheses coding command double quotes	coding coordinate plane parameters point toolkit programming ordered pairs sprite origin (X,Y) coordinates stage

