

EDUCATIONAL TECHNOLOGY CURRICULUM GUIDE

K-8

2012

REGIONAL OFFICE OF CURRICULUM AND INSTRUCTION

CARLSTADT PUBLIC SCHOOL
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Standard	Standard 8.1 Educational Technology - ALL STUDENTS WILL USE DIGITAL TOOLS TO ACCESS, MANAGE, EVALUATE, AND SYNTHESIZE INFORMATION IN ORDER TO SOLVE PROBLEMS INDIVIDUALLY AND COLLABORATIVELY TO CREATE AND COMMUNICATE KNOWLEDGE.			
Strand	A. Technology Operations and Concepts			
Grades	Content	Code	Skills	Suggested Activities
Grades K, 1, and 2	The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.	8.1.2.A.1	Identify the basic features of a computer and explain how to use them effectively.	Students will trace the name of the computer parts and color a picture.
		8.1.2.A.2	Use technology terms in daily practice.	Students will be exposed to computer terms as part of daily lessons on computer and interactive whiteboard.
		8.1.2.A.3	Discuss the common uses of computer applications and hardware and identify their advantages and disadvantages.	Students will be exposed to applications as they are integrated into daily lessons, including drawing, word, and standalone applications.
		8.8.2.A.4	Create a document with text using a word processing program.	Type sentence or paragraph on an assigned subject.
		8.1.2.A.5	Demonstrate the ability to navigate in developmentally appropriate virtual environments	Navigate through a calendar entering the months, days of the week, and special events.
Grades 3 and 4	The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.	8.1.4.A.1	Demonstrate effective input of text and data using an input device.	Create an excel document for use in recording and analyzing data in an experiment of speed.
		8.1.4.A.2	Create a document with text formatting and graphics using word processing.	Students create a travel brochure to one of the early Colonies.
		8.1.4.A.3	Create and present a multimedia presentation that includes graphics.	Create a commercial advertising a "new" product during the Industrial Revolution.

		8.1.4.A.4	Create a simple spreadsheet, enter data, and interpret the information.	Create an excel document for use in recording and analyzing data in an experiment of speed.
		8.1.4.A.5	Determine the benefits of a wide range of digital tools by using them to solve problems.	Participate in lessons to view the types of materials that are available
Grades 5, 6, 7, and 8	The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.	8.1.8.A.1	Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program	Create a newspaper that may have been released upon the end of the Civil War.
		8.1.8.A.2	Plan and create a simple database, define fields, input data and produce a report using sort and query.	Create a simple database such as an address and birthday book.
		8.1.8.A.3	Create a multimedia presentation including sound and images.	Create a commercial advertising a "new" product during the Industrial Revolution.
		8.1.8.A.4	Generate a spreadsheet to calculate, graph and present information.	Using the interactive white board, record temperatures of US states. Construct a graph, plot the temperatures and find the mean, median and range of all states.
		8.1.8.A.5	Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.	Introduce students to the types of resources that are available.

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Strand	B. Creativity and Innovation			
Grades	Content	Code	Skills	Suggested Activities
Grades K, 1, and 2	The use of digital tools and media-rich resources enhances creativity and the construction of knowledge.	8.1.2.B.1	Illustrate and communicate original ideas and stories using digital tools and media-rich resources.	Students will participate in stories and literacy activities on a regular basis, including Starfall and other literacy sites as well as creating their own stories in drawing programs or Doodle Cast (iPad).
Grades 3 and 4	The use of digital tools and media-rich resources enhances creativity and the construction of knowledge.	8.1.4.B.1	Produce a media-rich digital story about a significant local event or issue based on first-person interviews.	Create a digital story/documentary with pictures and voice. Write script for story/documentary. Use digital cameras or scanners.
Grades 5, 6, 7, and 8	The design process is a systemic approach to solving problems.	8.1.8.B.1	Synthesize and publish information about a local or global issue or event on a collaborative, web-based service (also known as a shared hosted service).	Create a digital story/documentary with pictures and voice which address a local or global issue. (PSA, for example) Use digital cameras or scanners.

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Strand	C. Communication and Collaboration			
Grade Level	Content	Code	Skills	Suggested Activities
Grades K, 1, and 2	Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.	8.1.2.C.1	Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using electronic tools.	Students will participate in programs with a collaborative component, such as Read Across America, Read Across NJ.
Grades 3 and 4	Digital tools and environments support the learning process and foster collaboration in solving local or global	8.1.2.C.1	Engage in a variety of developmentally appropriate learning activities with students in other classes, schools or countries using electronic tools.	Students will participate in programs with a collaborative component, such as Read Across America, Read Across NJ.
Grades 5, 6, 7, and 8	Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.	8.1.8.C.1	Participate in an online learning community with learners from other countries to understand their perspectives on a global problem or issue, and propose possible solutions.	Communicate with an author after having studied some of his/her work. Prepare original writing pieces to share, via Skype or other venue, such as response pieces or poems and prose related to the authors themes. Students will participate in programs with a collaborative component, such as Read Across America, Read Across NJ.

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Strand	D. Digital Citizenship			
Grade Level	Content	Code	Skills	Suggested Activities
Grades K, 1, and 2	Technological advancements create societal concerns regarding the practice of safe, legal and ethical behaviors.	8.1.2.D.1	Model legal and ethical behaviors when using both print and non-print information by citing resources.	Review all items in the AUP, provide discussion time to encourage students to think about the consequences of inappropriate or irresponsible behavior. Review fair use policies and the proper use of material found on the internet. Use a variety of resources to introduce scenarios of cyber safety and the misuse of information technology (such as Common Sense Media). They will be given guides for citing resources appropriately and will be introduced to websites that offer media for free (such as Freeplay Music).
Grades 3 and 4	Technological advancements create societal concerns regarding the practice of safe, legal and ethical behaviors.	8.1.4.D.1	Explain the need for individuals and members of the global community to practice cyber safety, cyber security, and cyber ethics when using existing and emerging technologies	
		8.1.4.D.2	Analyze the need for and use of copyrights.	
		8.1.4.D.3	Explain the purpose of an Acceptable Use Policy (AUP) and the consequences of inappropriate use of technology.	
Grades 5, 6, 7, and 8	Technological advancements create societal concerns regarding the practice of safe, legal and	8.1.8.D.1	Model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics.	
		8.1.8.D.2	Summarize the application of fair use and creative commons.	
		8.1.8.D.3	Demonstrate how information may be biased on a controversial issue.	

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Strand	F. Critical Thinking, Problem Solving, and Decision Making			
Grade Level	Content	Code	Skills	Suggested Activities
Grades K, 1, and 2	Information accessed through the use of digital tools assists in generating solutions and making decisions.	8.1.2.F.1	Use mapping tools to plan and choose alternate routes to and from various locations.	Students will practice reading a map and determining the distance between various places, for instance in World Language they will view a map of Spain and become familiar with the names of the major cities and the distance between those cities.
Grades 3 and 4	Information accessed through the use of digital tools assists in generating solutions and making decisions.	8.1.4.F.1	Select and apply digital tools to collect, organize, and analyze data that support a scientific finding.	Use excel and advanced word tools to record, analyze and collaborate on data. Use Google Docs to collaborate on presentation of data. Students will practice reading a map and determining the distance between various places, for instance in World Language they will view a map of Spain and become familiar with the names of the major cities and the distance between those cities, as compared with cities in the United States.
Grades 5, 6, 7, and 8	Information accessed through the use of digital tools assists in generating solutions and making decisions.	8.1.8.F.1	Use an electronic authoring tool in collaboration with learners from other countries to evaluate and summarize the perspectives of other cultures about a current event or contemporary figure.	Students will use a variety of online resources to explore other Spanish-Speaking countries, including their geography, culture, government, and current events.

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Strand	E. Research and Information Literacy			
Grade	Content	Code	Skills	Suggested Activities
Grades K, 1, and 2	Effective use of digital tools assists in gathering and managing information.	8.1.2.E.1	Explore a problem / issue affecting children using digital tools and online resources and discuss possible solutions.	Students will participate in a learning experience using online resources that show data or real life issues around the world.
Grades 3 and 4	Effective use of digital tools assists in gathering and managing information.	8.1.4.E.1	Investigate a problem / issue found in the United States and / or another country from multiple perspectives using digital tools and online resources and evaluate findings to present possible solutions.	Students will participate in a learning experience using online resources that show data or real life issues around the world.
		8.1.4.E.2	Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources to complete a variety of tasks.	Students will participate in a learning experience that involves the use of online resources showing data or real life issues around the world. Students will be introduced to some reliable websites and will dissect those to understand that they are reliable.
Grades 5, 6, 7, and 8	Effective use of digital tools assists in gathering and managing information.	8.1.8.E.1	Gather and analyze findings to produce a possible solution for a content-related or real world problem using data collection technology.	Create an electronic project tracing the evolution of an animal with script and music. Project what adaptations an animal might make in the future. Consider the possibility of extinction and why. Students will evaluate websites and practice navigating the internet to determine the credibility of information found.