Burch Charter School of Excellence

Computer / Technology Curriculum Guide

Grades 3-5

2020-2021

Approved by the Burch Charter School of Excellence Board of Trustees

August 2020

ABSTRACT

An education in technology is an essential component of a curriculum for the development of 21st century skills. The benefits of collaboration, problem solving, critical thinking, and creativity inherent in a technology education program are crucial to prepare students to function in school and society. Students in grades 3-5 practice basic computer functions and develop keyboarding skills for use in school. Students build upon technology skills each school year beginning in kindergarten. By the end of grade 5, students will have been introduced to and continue to practice touch typing techniques, word processing applications, and global networks for communication. Each grade level provides developmental practice in each of the curricular areas of Technology Operations and Concepts and Digital Citizenship.

Month/Marking Period	3rd Grade	4th Grade	5th Grade
Standards	8.1.4.A.1-5, 8.1.4.B.1, 8.1.4.D.1, 8.1.4.D.3, 8.1.4.E.1-2, 8.1.4.F.1, 8.2.4.C.1-3, 8.2.4.F.1-2	8.1.4.A.1-5, 8.1.4.B.1, 8.1.4.D.1, 8.1.4.D.1, 8.1.4.D.3, 8.1.4.E.1-2, 8.1.4.F.1, 8.2.4.C.1-3, 8.2.4.F.1-2	8.1.4.A.1-5, 8.1.4.B.1, 8.1.4.D.1, 8.1.4.D.1, 8.1.4.D.3, 8.1.4.E.1-2, 8.1.4.F.1, 8.2.4.C.1-3, 8.2.4.F.1-2
Essential Question:	How can I learn to use the keyboard to type efficiently?	How can digital tools enhance communication?	How can technological tools be applied?
Content:	Beginning to Type	Use of Digital Tools	Developing Use of Microsoft Office Applications
Skills and Topics:	**Technology Operations and Concepts:** • practice proper posture at the computer while keyboarding • follow proper start up, log-on, and reboot procedures • practice proper computer and computer room etiquette • identify and demonstrate the proper use of the monitor, keyboard, mouse, printer, and touch interfaces (e.g., iPad) • demonstrate a relationship among core technology elements (e.g., operating system, web browser) • recognize and use computer icons on the desktop to navigate files and programs • save to the network drive • use letter keys, space bar, shift key, number keys, enter, delete, backspace, caps lock, tab, control, alt, and escape • identify, locate, and begin using the touch-typing technique • identify and use punctuation keys • create and use graphic organizers to construct or design a document • practice word processing access specific teacher-directed files and websites stored in grade-level folders **Digital Citizenship:** • review proper etiquette when using the Internet • review Prospect Park Board of Education's Computer Use and Internet Contract • discuss the purpose of an acceptable use policy and consequences for inappropriate use of technology • discuss appropriate language to be used in electronic	**Technology Operations and Concepts:** • follow proper start up, log-on, and reboot procedures • use proper computer and computer room etiquette • use computer icons on the desktop to navigate files and programs • save to the network drive • demonstrate familiarity with keyboarding skills • practice using the touch-typing technique • identify and use punctuation keys • create and use graphic organizers to construct or design a document • select, move, and delete text indent paragraphs • type and format a paragraph • center and justify text • create and produce a grade-appropriate podcast practice word processing through project based assignments • input data, produce charts, and interpret graphs on a spreadsheet • create and produce a grade-appropriate digital presentation • access specific teacher-directed websites stored in grade-level folders • present possible solutions or viewpoints using digital tools • input media to a digital interdisciplinary project • access specific teacher-directed programs **Digital Citizenship** • display proper etiquette when using the Internet	**Technology Operations and Concepts** • follow proper start up, log-on, and reboot procedures • use proper computer and computer room etiquette • navigate files and programs on the desktop • save to the network drive • demonstrate fluency with keyboarding skills • expand touch-typing techniques • identify and use punctuation keys • create and use graphic organizers to construct or design a document • convert information from a graphic organizer into an outline • select, move, and delete text • indent paragraphs • type and format a paragraph • select, move, and delete text • access the server to open files and programs center and justify text • practice word processing through project based assignments • input data, produce charts, and interpret graphs on a spreadsheet • create and produce a grade-appropriate Google doc • access specific teacher-directed websites stored in grade-level folders • investigate a problem or issue from multiple perspectives and present possible solutions using digital tools citing online resources • input media to a digital interdisciplinary project • access specific teacher-directed programs **Digital Citizenship**

	communications • practice simple searches using a child friendly search engine • understand basic Internet terminology • practice cyber safety and ethics when using the Internet **Information Access Research Tools:** • locate specific information by searching a database **Problem-Solving and Decision-Making Tools:** • identify hardware problems and suggest solutions via digital tools	• comply with Prospect Park Board of Education's Computer Use and Internet Contract • explain the purpose of an acceptable use policy and consequences for inappropriate use of technology • use appropriate language to be used in electronic communications • practice simple searches using a child friendly search engine • understand basic Internet terminology • practice cyber safety and ethics **Information Access Research Tools:** • locate specific information by searching a database and evaluate the accuracy and relevance of that information **Problem-Solving and Decision-Making Tools:** • identify hardware problems and suggest solutions to solve them • utilize and manipulate computer applications to independently or collaboratively solve problems • demonstrate the need to manipulate computer programs	• demonstrate proper etiquette when using the Internet • comply with Prospect Park Board of Education's Computer Use and Internet Contract • use appropriate language to be used in electronic communications • engage in a variety of developmentally appropriate learning activities with understand basic Internet terminology • present cyber safety and ethics when using digital tools • evaluate the accuracy and relevance of specific information located through databases and input into digital presentations **Problem-Solving and Decision-Making Tools**: • identify hardware problems and suggest solutions to solve them • perform targeted searches using a search engine understand basic Internet terminology • present cyber safety and ethics when using digital tools • demonstrate a relationship among core technology elements as they relate to the Internet **Information Access Research Tools** • evaluate the accuracy and relevance of specific information located through databases and input into digital presentations **Problem-Solving and Decision-Making Tools:** • identify hardware problems and suggest solutions to solve them • utilize and manipulate computer applications to independently or collaboratively solve problems
Integration of Technology:	Internet, Web Quests, wireless laptop computers, computer laboratory, SMART Boards, Google Docs, email, PCs, iPads, video streaming, podcasting	Internet, Web Quests, wireless laptop computers, computer laboratory, SMART Boards, Google Docs, email, PCs, iPads, video streaming, podcasting	Internet, Web Quests, wireless laptop computers, computer laboratory, SMART Boards, Google Docs, email, PCs, iPads, video streaming, podcasting
Writing:	Conclusions and analysis of exploratory activities	Conclusions and analysis of exploratory activities	Conclusions and analysis of exploratory activities
Formative Assessments:	Teacher observations, opening activities, authentic assessments benchmarks	Teacher observations, opening activities, authentic assessments benchmarks	Teacher observations, opening activities, authentic assessments benchmarks
Summative Assessments:	Projects, pre assessment surveys, presentations	Projects, pre assessment surveys, presentations	Projects, pre assessment surveys, presentations

Performance Assessments:	Interdisciplinary projects	Interdisciplinary projects	Interdisciplinary projects
Interdisciplinary Connections:	*ELA: RI.3.1-9, WHSS.3.1-8 *Mathematics: 3.NBT.1-2, 3.MD.1, 3.MD.3-4, 3.G.1 Science: 5.1.4.B.2, 5.1.4.B.4, 5.1.4.C.1-3, 5.1.4.D.3 Arts: 1.3.5.D.1, 1.3.5.D.5, 1.4.5.A.2, 1.4.5.B.2 Health/PE: 2.1.4.A.1, 2.5.4.A.1-2, 2.5.4.A.4 World Language: 7.1.AL.A.3 Social Studies: Interdisciplinary projects are selected from topics studied in the classroom. 21st Century Life/Careers: 9.1.4.A.1-5, 9.1.4.B.1, 9.1.4.C.1, 9.1.4.D.1-3, 9.1.4.E.1-3, 9.1.4.F.1-2	*ELA: RI.4.1-9, WHSS.4.1-8 *Mathematics: 4.OA.5, 4.NBT.1-4, 4.MD.1-2, 4.MD.4, 4.G.2-3 Science: 5.1.4.B.2, 5.1.4.B.4, 5.1.4.C.1-3, 5.1.4.D.3 Arts: 1.3.5.D.1, 1.3.5.D.5, 1.4.5.A.2, 1.4.5.B.2 Health/PE: 2.1.4.A.1, 2.5.4.A.1-2, 2.5.4.A.4 World Language: 7.1.AL.A.3 Social Studies: Interdisciplinary projects are selected from topics studied in the classroom. 21st Century Life/Careers: 9.1.4.A.1-5, 9.1.4.B.1, 9.1.4.C.1, 9.1.4.D.1-3, 9.1.4.E.1-3, 9.1.4.F.1-2	*ELA: RI.5.1-9, WHSS.5.1-8 *Mathematics: 5.NBT.1-2, 5.MD.2, 5.G.1 Science: 5.1.4.B.2, 5.1.4.B.4, 5.1.4.C.1-3, 5.1.4.D.3 Arts: 1.3.5.D.1, 1.3.5.D.5, 1.4.5.A.2, 1.4.5.B.2 Health/PE: 2.1.4.A.1, 2.5.4.A.1-2, 2.5.4.A.4 World Language: 7.1.AL.A.3 Social Studies: Interdisciplinary projects are selected from topics studied in the classroom. 21st Century Life/Careers: 9.1.4.A.1-5, 9.1.4.B.1, 9.1.4.C.1, 9.1.4.D.1-3, 9.1.4.E.1-3, 9.1.4.F.1-2
21st Century Themes:	Global Awareness, Civic Literacy, Health Literacy	Global Awareness, Civic Literacy, Health Literacy	Global Awareness, Civic Literacy, Health Literacy
21st Century Skills:	Creativity and Innovation, Media Literacy, Critical Thinking and Problem Solving, Life and Career Skills, Information and Communication Technologies Literacy, Communication and Collaboration, Information Literacy	Creativity and Innovation, Media Literacy, Critical Thinking and Problem Solving, Life and Career Skills, Information and Communication Technologies Literacy, Communication and Collaboration, Information Literacy	Creativity and Innovation, Media Literacy, Critical Thinking and Problem Solving, Life and Career Skills, Information and Communication Technologies Literacy, Communication and Collaboration, Information Literacy
Resources:	Web 2.0 tools, United Streaming, Inspiration Microsoft Office Applications, Windows 7 Tools and Applications, Google Docs	Web 2.0 tools, United Streaming, Inspiration Microsoft Office Applications, Windows 7 Tools and Applications, Google Docs	Web 2.0 tools, United Streaming, Inspiration Microsoft Office Applications, Windows 7 Tools and Applications, Google Docs
Careers:	Applicable career options are discussed as they arise throughout the technology program. Career options include, but are not limited to, the following career clusters: Arts, A/V Technology, and Communications Career Cluster; Business, Management, and Administration Career Cluster; Education and Training Career Cluster; Government and Public Administration Career Cluster; Health Science Career Cluster; Hospitality and Tourism Career Cluster; Human Services Career Cluster; Information Technology Career Cluster; Law, Public Safety, Correction, and Security Career Cluster; Manufacturing Career Cluster; Marketing Career Cluster; Science, Technology, Engineering and Mathematics Career Cluster; Transportation, Distribution, and Logistics Career Cluster.	Applicable career options are discussed as they arise throughout the technology program. Career options include, but are not limited to, the following career clusters: Arts, A/V Technology, and Communications Career Cluster; Business, Management, and Administration Career Cluster; Education and Training Career Cluster; Government and Public Administration Career Cluster; Health Science Career Cluster; Hospitality and Tourism Career Cluster; Human Services Career Cluster; Information Technology Career Cluster; Law, Public Safety, Correction, and Security Career Cluster; Manufacturing Career Cluster; Marketing Career Cluster; Science, Technology, Engineering and Mathematics Career Cluster; Transportation, Distribution, and Logistics Career Cluster.	Applicable career options are discussed as they arise throughout the technology program. Career options include, but are not limited to, the following career clusters: Arts, A/V Technology, and Communications Career Cluster; Business, Management, and Administration Career Cluster; Education and Training Career Cluster; Government and Public Administration Career Cluster; Health Science Career Cluster; Hospitality and Tourism Career Cluster; Human Services Career Cluster; Information Technology Career Cluster; Law, Public Safety, Correction, and Security Career Cluster; Manufacturing Career Cluster; Marketing Career Cluster; Science, Technology, Engineering and Mathematics Career Cluster; Transportation, Distribution, and Logistics Career Cluster.

Differentiation/Accommodations/Modifications			
Gifted and Talented	**English Language Learners**	**Students with Disabilities**	**Students at Risk of School Failure**
(content, process, product and learning environment) **Extension Activities** Conduct research and provide presentation of cultural topics. Design surveys to generate and analyze data to be used in discussion. Debate topics of interest / cultural importance. Authentic listening and reading sources that provide data and support for speaking and writing prompts. Exploration of art and/or artists to	**Modifications for Classroom** **Modifications for Homework/Assignments** Modified Assignments Native Language Translation (peer, online assistive technology, translation device, bilingual dictionary) Extended time for assignment completion as needed Highlight key vocabulary Use graphic organizers	*(appropriate accommodations, instructional adaptations, and/or modifications as determined by the IEP or 504 team)* **Modifications for Classroom** Pair visual prompts with verbal presentations Ask students to restate information, directions, and assignments. Repetition and practice Model skills / techniques to be mastered. Extended time to complete class work	**Modifications for Classroom** Pair visual prompts with verbal presentations Ask students to restate information, directions, and assignments. Repetition and practice Model skills / techniques to be mastered. Extended time to complete class work Provide copy of class notes Preferential seating to be mutually determined by the student and teacher

understand society and history.		Provide copy of class notes	Student may request to use a computer to complete assignments.
Implement RAFT Activities as they pertain to the types / modes of communication (role, audience, format, topic).		Preferential seating to be mutually determined by the student and teacher	Establish expectations for correct spelling on assignments.
Anchor Activities		Student may request to use a computer to complete assignments.	Extra textbooks for home.
Use of Higher Level Questioning Techniques		Establish expectations for correct spelling on assignments.	Student may request books on tape / CD / digital media, as available and appropriate.
Provide assessments at a higher level of thinking		Extra textbooks for home.	Assign a peer helper in the class setting
		Student may request books on tape / CD / digital media, as available and appropriate.	Provide oral reminders and check student work during independent work time
		Assign a peer helper in the class setting	Assist student with long and short term planning of assignments
		Provide oral reminders and check student work during independent work time	Encourage student to proofread

			assignments and tests
		Assist student with long and short term planning of assignments	Provide regular parent/ school communication
		Encourage student to proofread assignments and tests	Teachers will check/sign student agenda daily
		Provide regular parent/ school communication	Student requires use of other assistive technology device
		Teachers will check/sign student agenda daily	**Modifications for Homework and Assignments** Extended time to complete assignments.
		Student requires use of other assistive technology device	Student requires more complex assignments to be broken up and explained in smaller units, with work to be submitted in phases.
		Modifications for Homework and Assignments Extended time to complete assignments.	Provide the student with clearly stated (written) expectations and grading criteria for assignments.
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		Provide the student with clearly stated (written) expectations and grading criteria for assignments. Implement RAFT activities as they pertain to the types / modes of communication (role, audience, format, topic). **Modifications for Assessments** Extended time on classroom tests and quizzes. Student may take/complete tests in an alternate setting as needed. Restate, reread, and clarify directions/questions Distribute study guide for classroom tests. Establish procedures for accommodations / modifications for assessments.	communication (role, audience, format, topic). **Modifications for Assessments** Extended time on classroom tests and quizzes. Student may take/complete tests in an alternate setting as needed. Restate, reread, and clarify directions/questions Distribute study guide for classroom tests. Establish procedures for accommodations / modifications for assessments.