MBUSD 5th Grade Technology Standards Implementation Guide

January, 2019

Technology Standard	Subtopic	What the Students Will Do	Apps and Lesson Resources
Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.	Digital Books	Create a writing project using an online or app based digital book that includes text and text features (CCSS W6, W10, SL2, SL5) Include formatting (headings), illustrations, and multimedia to aid comprehension (CCSS W2)	Creative Book Builder, Storybird.com, Educreations, ShowMe, Explain Everything
	Digital Art	Create digital images and add them to presentations to enhance the development of main ideas and themes. (CCSS W2, SL5)	Doodle Buddy, Typic, Strip Design, Google Drawing
	Video & Audio Editing	• Create presentations that include multimedia components such as graphics, sound, and visual displays (CCSS SL5) • Engineering Design: Plan and conduct fair tests in which variables are controlled (NGSS 3-5-ETS1-3)	Adobe Spark Video, Camera, iMovie, Voice Recorder, Educreations, ChatterPix Kids, Stop Motion Movie
	Publishing	Create digital documents to publish a writing projects, adding images and text features to enhance the text (CCSS W2)	Keynote, Pages, Google Docs, Google Site, Creative Book Builder
Communication and Collaboration: Students use digital media to communicate and work collaboratively, supporting individual learning and contributing to the learning of others.	Web and IOS	• Collaborate with one or more students to digitally produce and publish writing (CCSS W6) • Summarize the points a media source makes, identifying and analysing supported claims and fallacies (CCSS SL3)	Google Drive, Padlet, FlipGrid, FlipGrid Tutorials, FlipGrid Integration
	Blogging	Regularly communicate and share ideas with others using a teacher created and monitored blog (CCSS W6)	Kid Blog, Blog w/Paper, Kid Blog Post
	Presentation Tools	Use a variety of technologies to create presentations to communicate and exchange ideas, and evaluate these multimedia presentations.	Keynote, Google Slides, Popplet Lite, Popplet Lite Post, Adobe Spark, Canva
	Cloud Collaboration	• Use technology, including the internet, to interact and collaborate with others to plan, produce, edit, and revise writing (CCSS W6) • Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence (NGSS 5-PS1)	Google Docs, Padlet, Google Slides Collaborative Template, Student Google Slides for Collaboration Tutorial
Research and Information Fluency: Students apply digital tools	Digital Research Skills	• Summarize digital information presented visually, quantitatively, and orally (CCSS SL2) • Use digital reference materials to determine key word	Dictionary, Thesaurus, iBooks, LiveBinder, Quizlet, YouTube, Discovery Education, BrainPop, Google

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to gather, evaluate, and use information.		pronunciation, meaning, and alternate word choices (CCSS L4) • Draw on information from multiple print or digital sources to efficiently locate an answer to a question or solve a problem (CCSS RI7) • Obtain information from reliable media to explain phenomena or solutions to a design problem (NGSS 5-ESS3-1)	
	Evaluate Internet Resources	Understand how to find safe websites for research	Common Sense Media, Teaching Channel, Online Searching Video
	Citation Formats	Provide a list of print and digital sources used to take notes and categorize information (CCSS W8)	*Common Sense Media Digital Literacy & Citizenship*: How to Cite a Site Lesson, Research Building Blocks: "Cite Those Sources!" Lesson Plan
	Content Specific Technology Skills	Use models, diagrams and flow charts, to describe the transfer of energy and the movement of matter (NGSS PS3-1, LS2-1) Represent data in graphic displays: bar graphs, pictographs, pie charts (NGSS ESS1-2) Use Virtual Manipulatives to solve math problems	Google Drive, Google Forms, Google Drawing, Google Docs, Google Sheets, Numbers Houghton-Mifflin Player, Schoolkit, Virtual Manipulatives App (ABCYA.com)
	Data Analysis	• Analyse how the elements in a multimedia presentation contribute to the meaning, tone, or beauty of the text (CCSS RL7) • Support an argument with data (NGSS ESS1-1)	Excel, Google Sheets, Numbers
Critical Thinking, Problem Solving, and Decision Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.	Organizational Tools	Organize ideas for an information report using a mind mapping Web or iPad application	Lucidchart, Ideament (formally IdeaSketch), Popplet
	Design Cycle & Project Management	Plan and carry out investigations to answer questions or test solutions to problems: control variables and provide evidence to support design solutions (NGSS ETS1-3) Complete a Project Based Learning/Genius Hour activity, identifying problem or idea, brainstorming solution or process, evaluating reasonableness, and present solution or information	Autodesk Inventor, 123D, Popplet, iMovie, Robots for iPad, Tynker

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		Infection: Modeling and Simulation (PLTW) - students program their own models and collect data by running simulations with different parameters.	
	Coding & Robotics	• Create a product using a coding platform • Develop a simple robot or use code to command a robot	Scratch, Codecademy, Khan Academy, Blockly, Code.org, Dash and Dot, Code
Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.	Personal Security Online & Digital Rights and Responsibilities	• Understand how to create secure passwords to protect private information and online accounts • Understand what information is safe and smart to put online • Understand that while cell phones can be valuable for communication, multi-tasking while talking can be distracting and dangerous	Common Sense Media Digital Passport App: Introductory Password Lesson Share Jumper Privacy Lesson Twalkers Communication Lesson
	Bullying	Understand and practice classroom anti-cyberbullying procedures.	Common Sense Media Digital Passport App E-volve Lesson
	Copyright and Fair Use & Ethical Use Policy	• Understand copyright and free use policies • Explore digital image alteration, creative upsides and power to distort perceptions	Common Sense Media Digital Passport Creative Credit Mix & Mash Lesson
Technology Operation and Concepts: Students demonstrate a sound understanding of technology concepts, systems, and operations.	Navigating in a Virtual Environment	Navigate around and paraphrase information presented in digital media and formats (CCSS SL 2) Draw on information from digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently (CCSS RI 5.7)	Scholastic News and Time for Kids Digital Resources, TweenTribune
	Internet Usage	Safely and effectively navigate through websites to locate information	Common Sense Media Digital Passport Search Shark Lesson
	Apps for Education & Cloud Storage	Independently access GAFE account using username and password. • Navigate in Google Drive and Docs. Share documents with teacher and collaborate with classmates using the comments feature. • Open Keynote and Pages documents to save in Google Drive; Upload photos and/or videos to Drive	Chrome, Google Drive, Google Docs, Google Classroom, Classroom Tutorial

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	Keyboarding	Increase speed and accuracy. Type a minimum of two pages in a single sitting (CCSS W6)	Typing.com, subject area typing production, TypingClub
	Word Processing	• Produce, revise, edit, and publish writing using digital resources (CCSS W 5, 6, 10 & L 4)	Word, Pages, Google Docs
	Spreadsheets and Graphing	• Represent data in graphical displays to reveal patterns (NGSS 5-ESS1-2) • Describe and graph quantities such as area and volume to answer scientific questions (NGSS 5-ESS2-2)	Numbers, Excel, Google Sheets, Create-a-Graph

Support 2015-2016 Minimal Technology Expectations

Authors: Michelle Krzmarzick, 5th Grade Teacher/TOSA--Reading and Literacy; Christine Jewett, Robinson, 5th Grade Teacher, Christina Lee, Educational Technologist, Jeanne Reed, Educational Technology Consultant, Paula Noda, TOSA--Instructional Technology, Jason Marshall, TOSA--Instructional Technology, Gretchen Gabreski, TOSA--21st Century Teaching and Learning