

Tools, Resources, and Skills for Technology Literate 6th – 8th Graders

These are the Tools, Resources, and Skills our Middle School students should be using at each grade level so as to develop their technology literacy. *Italic numbers are referenced to [AERO Standards](#).*

Word Processing Tools – Students will use these tools to express their thoughts, communicate ideas, and collaborate with audiences inside and outside the classroom to support learning and research (3a, 3c, 3d, 3e, 3f). Examples: MS Word, Collaborative word processing tools online (wiki, blogs, Google Docs).

Data Analysis Tools – Students will use these tools both individually and collaboratively to process data, report results (graphically) and problem solve possible solutions (3a, 3b, 3c, 3e). Examples: MS Excel, MS Access, Collaborative data analysis tools online (Google Docs, online databases).

Presentation / Multimedia Tools – Students will use multimedia tools to communicate their thoughts and ideas to audiences inside and outside the classroom (3a, 3c, 3d, 3e). Examples: MS PowerPoint, Windows Movie Maker, PhotoStory 3, and online tools (Animoto, Voicethread, TeacherTube, Skype, Google Docs).

Imaging Tools – Students will use imaging tools to create original works as a means of personal or group expression, will gain knowledge of where to access appropriate images for school use, how to cite the use of images, and manipulate image files (3a, 3c, 3d). Examples: Paint.net, InkScape, Picasa, Windows Tools, Online image resources (Flickr Creative Commons, Creative Commons Search).

Audio Tools – Students will use audio tools to create original works as a means of personal or group expression, collaborate with audiences outside the classroom, and manipulate audio files (record, edit, and mixing of voice and sound files) (3a, 3c, 3d). Examples: Audacity, Skype, Podcasting

Personal Productivity Tools – Students will use these tools to collaborate, communicate, and organize their thoughts, resources, and finished projects (3a, 3c, 3e). Examples: Email, Instant Messaging, Calendar, Google Docs, Online bookmarking tools (Delicious), Personal web presence (ePortfolio, wiki, blog, etc), Concept mapping tools (Inspiration, Glify, Bubbl.us).

Research and Information Tools – Students will research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. Students will use Interactive websites, models, and simulations to further their understanding of curriculum concepts (3a, 3c, 3e, 3h). Examples: Search Engines, Interactive websites, Wikipedia, Personal Learning Network (Google Reader), Forums, Online Communities, Interactive websites, Models, Simulations.

Basic Technology Operations and Concepts - Throughout the use of these tools students will identify and locate help-resources (1b), apply strategies for identifying and solving routine hardware and software problems that occur during everyday use (1a), select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems (3f), and demonstrate an understanding of concepts underlying hardware, software, and connectivity and of practical applications to learning and problem solving (3g). Examples: Help sections of above tools and websites, anti-virus and spam softwares, backing up of files, troubleshooting of computer hardware and software issues, keyboarding.

Effects of Technology Development and use on Social, Ethical, and Human Issues – Through individual and group projects students will demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society (2a), identify trends and forecast possibilities (2b), and exhibit legal and ethical behaviors when using information technology, and discuss consequences of misuse (2c).