

From MBUSD Educational Technology Use Plan, June 2009

3e. Acquiring Technology Skills and information Literacy

California state content standards in English Language Arts, Social Science, and Mathematics include technology use standards for grades four and above. The following table combines those content standards with MBUSD objectives listed in section 3d of this plan to create grade level benchmarks. These benchmarks prepare students to become independent users of technology tools by the time they reach high school, and go beyond those explicitly stated in the current state content standards for these grade levels, but are implied in the content standards of the upper grades. Sample activities employed within the District at the time of this writing are included below; teachers may implement other activities to accomplish these benchmarks.

In kindergarten through fifth grade, the general education classroom teacher is responsible for meeting the benchmarks listed in the table in section 3d above. As of this writing, many computers for student use are located in computer labs at each elementary school. Unfortunately budget limitations have resulted in the elimination of specialists to oversee these labs. Therefore, classroom teachers will either have additional computers for student use in their classrooms, or they will take their students to the lab and be responsible for students' safe use of computers. During the first two years of this plan, this arrangement will be reexamined and the plan may be revised as needed.

In sixth through eighth grades, technology benchmarks are met as part of the content standards in each discipline, under the supervision of the classroom teacher. For example, using word-processing and spreadsheet software is one of the seventh grade content standards in English/Language Arts, Writing standard 1.6, so the seventh grade English teachers have incorporated these tools in their lessons. At Manhattan Beach Middle School, computers are available for student use in the library and on laptop carts that teachers can bring to the classroom.

In grades nine through twelve, students need to be independent users of technology tools. Technology benchmarks are part of the content standards in each discipline, and classroom teachers provide support for the use of technology tools. At Mira Costa High School, students have access to computers in several labs and in the library.

In addition to the California state content standards, students are also instructed in Internet safety and ethical use, as appropriate for each grade level. More information about this education is in sections 3f and 3g of this document.

The following table lists grade level benchmarks and sample implementation ideas.

Grade	Benchmark	Benchmark Summary	Standards Based Implementation Ideas	CA Content Standard
K	3d. 1, 4, 5, 7, 8, 9, 10, 12, 16, 17, 18	The student will use mouse skills to open and operate a program or educational game and insert a CD (computer or audio). The student will understand responsible use of computers and audio/visual equipment.	<ul style="list-style-type: none"> •Visit the computer lab and library at school. Demonstrate skills in the classroom. (Example: Use <i>Paint</i> to create a self-portrait.) •Use classroom computers in creative play. Use computer programs to begin creative thinking. 	N/A
1	All above + 3d. 11	The student will create a word processing document, manipulate a file, and print a document.	Visit the computer lab and library at school. Practice skills in a program deemed appropriate by teacher. Navigate a program (for example, KidPix) to learn and reinforce skills.	N/A
2	+ 3d. 14, 19, 20, 21, 22	The student will create a slide using presentation software, importing a graphic, and using research to create text.	Students create a page about a marine animal using presentation software (for example, PowerPoint) that will be combined with other students' work to create a presentation. Limited research resources are used.	N/A
3	All above	Using an online catalog, students will locate print sources in the library.	Students use the online library catalog to locate print resources for use in researching an endangered species. Students synthesize this information and create an electronic presentation on the endangered species, including slides on the species in general, the habitat in which it is found, and details on how young are reared.	N/A

		Begin learning touch typing.	Plagiarism issues are discussed as part of the project. Use tutorial software to learn touch typing.	
4	+ 3d. 2, 15	The student will utilize electronic resources such as encyclopedias, almanacs, dictionaries, other databases, and Internet and online catalogs and use it as a resource in a research project, writing assignment, electronic presentation, or oral report. The student will correctly keyboard at a minimum rate of 12 w.p.m. The student will use a standard calculator to perform a variety of calculations.	Use electronic and print resources to prepare a report or presentation on their assigned California Mission. Plagiarism and evaluating Internet resources are discussed as part of the project. Use tutorial software to learn touch-typing. Students begin to learn how to use calculators.	Writing 1.7, 1.9
5	+ 3d. 13	Using spreadsheet software, students will create a chart, graph, or table inserted into a typed document with manipulated graphics. Students will utilize a portable storage device to save, store, and manipulate files.	Students will create a spreadsheet documenting the books that they have read during the course of the year, organizing the reference data and information for each book into the spreadsheet. Students save their work on a USB Flash Drive.	Writing 1.4
6		The student will search for information using a keyword search and create a report using word processing software. The student can format the document to meet the assignment requirements.	Students use an electronic keyword search to locate information on a significant person from ancient Greek or ancient Roman history. They locate both online and library print resources. Students use this information to create a typed written report, including a biography on this historical person. Citing sources and proper bibliographic format are taught as part of this project.	Writing 1.4
7		Students use spreadsheet software to	Comprehensive statistics about the March Madness	Math 1.0, 1.1, 1.2, 1.3

		analyze statistical data and use various types of graphic representations of the data.	Basketball tournament are collected, analyzed, and graphed using spreadsheet software.	
8		Students use technology resources to conduct a multi-step information search.	Students conduct a multi-step information search to look at the social and historical context of the 1930s in conjunction with reading <u>To Kill a Mockingbird</u> . This Internet scavenger hunt requires students to locate specific answers, accurately document URLs, and demonstrate the answers to questions in a summary or graphic form on a composite poster that organizes answers either chronologically or by genre.	Writing 1.4
9 & 10	+3d 3	Students research, analyze, and synthesize primary and secondary sources to create meaningful products including presentations using presentation software to share their work effectively with others. Students use graphing calculator	Develop a research question about a particular aspect of Elizabethan life or culture. Using Internet-based databases of journals, primary and secondary documents, articles, etc., students research the answer to their question. Students prepare an outline, using presentation software, that will incorporate visual components to enhance viewer understanding. All textual sources and images will be cited according to MLA guidelines. As part of the math sequence, students in Algebra 3-4 utilize graphing calculators. Graphing calculators are also used in Chemistry and Physics classes.	Writing 1.3, 1.8 Listening and Speaking 1.7
11 & 12		Develop and deliver multimedia presentations using clear research questions and creative and critical research strategies.	Develop a research question about a particular aspect of twentieth-century existentialism or its historical antecedents and prepare a presentation, using presentation software, to teach the rest of the class. Students use Internet-based databases of journals, primary and secondary documents, articles, etc., to research the answer to that question. Students prepare an outline, using presentation software, that will incorporate visual components to enhance viewer	Writing 1.6, 2.6 Listening and Speaking 2.4

			understanding. All textual sources and images will be cited according to MLA guidelines	
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Beginning with the 2009-9010 school year, MBUSD will use the Ed Tech Profile, including the school level supplements, to provide information to aid in planning teacher training and support for full implementation of the above benchmarks. Professional development is covered in section 4 of this plan. In addition, samples of lessons and student work at each grade level will be shared at grade level meetings among the elementary teachers, and at department meetings at the middle and high school levels. As teachers develop proficiency in web delivered content (“web 2.0”) tools, they will share content with peers both within and outside of the District.

Because some of the benchmarks for the elementary students fall outside the explicitly stated California State Content Standards, it is the responsibility of each of the five elementary principals to support their faculty in fulfilling these requirements.