Grant Elementary School

Technology Skills Benchmark Continuum

Petaluma City Schools
Proposed and Piloted 2007-2008

Technology Skills Benchmark Continuum
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Introduction

Grant Elementary School has operated a computer lab for 10 years. During that time, the educational use of the lab has extended beyond grades 4-6 to primary grades and even to Kindergarten. During this tenure, the national view of educational technology use has changed from "edutainment" applications to fully integrated standards-based curriculum with technology skills learning. The focus is less on drill and practice and more on critical thinking, problem solving and decision-making. The evolution of educational beliefs, along with the Petaluma City Schools adoption of the ISTE National Educational Technology Standards for Students (NETS.S), has precipitated a more specific, trackable and grade leveled functional skill set. Like all learning opportunities, skills are mastered over time. A steady, scaffolded and directed set of skills is required for success. At Grant, we believe that teaching integrated technology-based curriculum prepares students for success at the secondary schools where individual or small group attention and consistent access to technology are still not guaranteed. This document:

- Identifes and documents the skills needed for each grade level
- Provides a framework from which teachers can create integrated curriculum with an understanding of previously developed skills and new skills required for a project
- Aligns skills with the newly adopted district NETS.S standards

These skill sets were based on and adjusted to fit our access and profile at Grant School from the Kent School District (http://www.kent.k12.wa.us/ksd/it/inst_tech/index.html), an experienced and accomplished leader in identifying and integrating technology into curriculum. Skills were introduced in the 2007-2008 school year to students as a pilot and have been adjusted based on actual use, time alotted and project assignments. The current skill set reflects this first year's pilot adjustments.

Summary of Year 1

We began teaching the skill sets for each grade at the beginning of the second trimester. This initial year has been an introductory year for a defined set of skills as well asking students to be responsible for learning those skills.   While not at the "independent" use level for all skills in grades 1-6 as defined in the continuum, we have made significant progress. As a result, several recommendations are made for Year 2.

- Adoption of a ethics curricula (CyberSmart, Quick, 21st Century Information Fluency Project, etc.) for ethics with introduction and follow-up in the classroom outside of lab time; lab time will be used to work through "online" examples and assignments.
- Keyboarding begans formally in third grade, but it should be done more often for less time with initial "kickstart" sessions for grades 4, 5 and 6 since typing is foundational to writing skills using technology.
- Perhaps have some contest or other method for cementing the necessary computer and technology we can all communicate more easily.
- Determining which skills are necessary for classroom management so they can be taught and emphasized to allow independent working in classrooms using technology.
- Continue to identify and refine skills in one grade for use in projects in the next grade.

* All Skills are introduced in Kindergarten, and assistance is expected for each skill although some Kindergarten students may be able to achieve a skill independently.

Students Will…

1. Use hardware and software to support learning and productivity	Trimester Taught		
With Assistance…	**1**	**2**	**3**
1.1. Turn on the computer correctly			
1.2. Shutdown the computer correctly			
1.3. Use the mouse			
1.4. Type First and Last Name into application			
1.5. Utilize basic paint, text and graphic tools			
1.6. Print			
1.7. Understand basic use of the keyboard			

2. Apply vocabulary and strategies for using technology in a networked system	Trimester Taught		
With Assistance…	**1**	**2**	**3**
2.1. Log in/off to a networked computer			
2.2. Know basic parts of the computer by name			
2.3. Recognize and use desktop/toolbar icons and menus			

3. Use electronic resources to communicate, collaborate & retrieve information	Trimester Taught		
With Assistance…	**1**	**2**	**3**
3.1. Use bookmarks and/or hyperlinks to access the Internet			

4. Use technology to create and deliver presentations	Trimester Taught		
With Assistance…	**1**	**2**	**3**
4.1. Orally present completed work (published) using slideshow or other posted methods. (Examples of published pieces include a slide show with voice, printed documented/drawing for class book or bulletin board, and/or posted work on the Internet.)			

5. Demonstrate ethical behavior	Trimester Taught		
With Assistance…	**1**	**2**	**3**
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
5.3. Understand and abide by the Grant/PCS Acceptable Use Policy			

Bold items are those new to this grade level or those moved from "With assistance" to "Independently" at this level.
Students Will…

1. Use hardware and software to support learning and productivity	Trimester Taught		
Independently…	1	2	3
1.1. Turn on the computer correctly			
1.2. Shutdown the computer correctly			
1.3. Use the mouse			
1.4. Type First and Last Name into application			
1.5. Utilize basic paint, text and graphic tools			
1.6. Print			
1.7. Understand basic use of the keyboard			
With Assistance…			
1.8. Type text into a word processing document			
1.9. Insert graphics into word-processed documents			
1.10. Insert information into a template (Word, PowerPoint, etc.)			
1.11. Use formatting features purposefully (text styles, colors, fonts and size)			

2. Apply vocabulary and strategies for using technology in a networked system	Trimester Taught		
Independently…	1	2	3
2.1. Log in/off to a networked computer			
2.2. Know basic parts of the computer by name			
2.3. Recognize and use desktop/toolbar icons and menus			
With Assistance…			
2.4. Open files or applications correctly			
2.5. Save files to a specified folder on the server correctly			

3. Use electronic resources to communicate, collaborate & retrieve information	Trimester Taught		
Independently…	1	2	3
3.1. Use bookmarks and/or hyperlinks to access the Internet			
With Assistance…			
3.2. Use search skills to retrieve information within an application.			

4. Use technology to create and deliver presentations	Trimester Taught		
With Assistance…	1	2	3
4.1. Orally present completed work (published) using slideshow or other posted methods. (Examples of published pieces include a slide show with voice, printed documented/drawing for class book or bulletin board, and/or posted work on the Internet.)			

5. Demonstrate ethical behavior	Trimester Taught		
Independently…	1	2	3
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
With Assistance…			
5.3. Understand and abide by the Grant/PCS Acceptable Use Policy			
5.4. Discuss copyright issues of electronic media			

Bold items are those new to this grade level or those moved from "With assistance" to "Independently" at this level.

Students Will…

1. Use hardware and software to support learning and productivity	Trimester Taught		
Independently…	1	2	3
1.1. Turn on the computer correctly			
1.2. Shutdown the computer correctly			
1.3. Use the mouse			
1.4. Type First and Last Name into application			
1.5. Utilize basic paint, text and graphic tools			
1.6. Print			
1.7. Understand basic use of the keyboard			
1.8. Type text into a word processing document			
With Assistance…			
1.9. Insert graphics into word-processed documents			
1.10. Insert information into a template (Word, PowerPoint, etc.)			
1.11. Use formatting features purposefully (text styles, colors, fonts and size)			
1.12. Begin basic keyboarding awareness			
1.13. Spell-check a document			
1.14. Toggle between two or more applications			
1.15. Use formatting features purposefully (text styles, colors, fonts and size)			

2. Apply vocabulary and strategies for using technology in a networked system	Trimester Taught		
Independently…	1	2	3
2.1. Log in/off to a networked computer			
2.2. Know basic parts of the computer by name			
2.3. Recognize and use desktop/toolbar icons and menus			
With Assistance…			
2.4. Open files or applications correctly			
2.5. Save files to a specified folder on the server correctly			

3. Use electronic resources to communicate, collaborate & retrieve information	Trimester Taught		
Independently…	1	2	3
3.1. Use bookmarks, and/or hyperlinks to access the Internet			
With Assistance…			
3.2. Use search skills to retrieve information within an application.			
3.3. Understand and use website navigational tools and methods			

4. Use technology to create and deliver presentations	Trimester Taught		
With Assistance…	1	2	3
4.1. Orally present completed work (published) using slideshow or other posted methods. (Examples of published pieces include a slide show with voice, printed documented/drawing for class book or bulletin board, and/or posted work on the Internet.)			

5. Demonstrate ethical behavior	Trimester Taught		
Independently…	1	2	3
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
With Assistance…			
5.3. Discuss copyright issues of electronic media			
5.4. Understand and abide by the Grant/PCS Acceptable Use Policy			

Bold items are those new to this grade level or those moved from "With assistance" to "Independently" at this level.
Students Will…

1. Use hardware and software to support learning and productivity	Trimester Taught		
Independently…	**1**	**2**	**3**
1.1. Turn on the computer correctly			
1.2. Shutdown the computer correctly			
1.3. Use the mouse			
1.4. Type text into a word processing document			
1.5. Utilize basic paint, text and graphic tools			
1.6. Print			
1.7. Begin formal keyboarding training			
1.8. Use formatting features purposefully (text styles, colors, fonts and size)			
1.9. Spell-check a document			
1.10. Use left, center and right justification modes			
With Assistance…			
1.11. Insert graphics into word-processed documents			
1.12. Toggle between two or more applications			
1.13. Insert information into a template (Word, PowerPoint, etc.)			
1.14. Copy, cut, and paste text and graphics			

2. Apply vocabulary and strategies for using technology in a networked system	Trimester Taught		
Independently…	**1**	**2**	**3**
2.1. Log in/off to a networked computer			
2.2. Know basic parts of the computer by name			
2.3. Recognize and use desktop/toolbar icons and menus			
With Assistance…			
2.4. Open files or applications correctly			
2.5. Save files to a specified folder on the server correctly			
2.6. Use "find file" features			
2.7. Use help tools (examples: menus, balloons, assistants, toolbars)			
2.8. Understand editing and word processing terminology (cut, copy, paste, tab, graphic, etc.)			

3. Use electronic resources to communicate, collaborate & retrieve information	Trimester Taught		
Independently…	**1**	**2**	**3**
3.1. Use URLs, bookmarks, and/or links to access the Internet			
3.2. Use search skills to retrieve information within an application.			
With Assistance…			
3.3. Use application to retrieve information about progress, goals and achievements			

Student Assessment Scores

1	2	3	4
Below Basic	**Basic**	**Proficient**	**Advanced**
Demonstrates less than half the benchmarks as defined.	Demonstrates all assisted and at least half the independent benchmarks.	Demonstrates all benchmarks as defined.	Demonstrates independently the majority of benchmarks designed to be accomplished with assistance.

* 1st and 2nd trimester scores will be based on the benchmarks taught for each of the five standards

3.4. Understand and use website navigational tools and methods			

4. Use technology to create and deliver presentations	**Trimester Taught**		
With Assistance…	**1**	**2**	**3**
4.1. Orally present completed work (published) using slideshow or other posted methods. (Examples of published pieces include a slide show with voice, printed documented/drawing for class book or bulletin board, and/or posted work on the Internet.)			

5. Demonstrate ethical behavior	**Trimester Taught**		
Independently…	**1**	**2**	**3**
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
With Assistance…	**1**	**2**	**3**
5.3. Discuss copyright issues of electronic media			
5.4. Understand and abide by the Grant/PCS Acceptable Use Policy			

Student Assessment Scores

1	2	3	4
Below Basic	**Basic**	**Proficient**	**Advanced**
Demonstrates less than half the benchmarks as defined.	Demonstrates all assisted and at least half the independent benchmarks.	Demonstrates all benchmarks as defined.	Demonstrates independently the majority of benchmarks designed to be accomplished with assistance.

* 1st and 2nd trimester scores will be based on the benchmarks taught for each of the five standards

Bold items are those new to this grade level or those moved from "With assistance" to "Independently" at this level.

Students Will…

1. Use hardware and software to support learning and productivity	Trimester Taught		
Independently…	1	2	3
1.1. Type text into a word processing document			
1.2. Utilize basic paint, text and graphic tools			
1.3. Use formatting features purposefully (text styles, colors, fonts and size)			
1.4. Spell-check a document			
1.5. Continue to develop formal keyboarding skills			
1.6. Use left, center and right justification modes			
1.7. Insert information into a template (Word, PowerPoint, etc.)			
1.8. Use left, center and right justification modes			
1.9. Insert graphics into a word processed document			
1.10. Copy, cut and paste text and graphics			
With Assistance…			
1.11. Enter and manipulate data in spreadsheets			
1.12. Produce graphs and/or charts based on spreadsheet data			
1.13. Select, crop, move and resize images			
1.14. Copy and paste text and/or graphics from one application to another			
1.15. Use bullets and numbering			
1.16. Toggle between two or more applications			

2. Apply vocabulary and strategies for using technology in a networked system	Trimester Taught		
Independently…	1	2	3
2.1. Log in/off to a networked computer			
2.2. Know basic parts of the computer by name			
2.3. Recognize and use desktop/toolbar icons and menus			
2.4. Open files or applications correctly			
2.5. Save files to a specified folder on the server correctly			
With Assistance…			
2.6. Use "find file" features			
2.7. Use help tools (examples: menus, balloons, assistants, toolbars)			
2.8. Understand editing and word processing terminology (cut, copy, paste, tab, graphic, etc.)			
2.9. Print to different locations			
2.10. **Apply strategies for identifying and solving routine hardware and software problems (examples: CTRL + ALT + DELETE, checking cable connections, etc.)**			
2.11. Create folders for saving and organizing work in user/home folders			
2.12. Know basic network terms (server, account, login terms, etc)			
2.13. Recognize basic file name extensions (.ppt, .doc, .xls, .pub, etc.)			

Student Assessment Scores

1	2	3	4
Below Basic	**Basic**	**Proficient**	**Advanced**
Demonstrates less than half the benchmarks as defined.	Demonstrates all assisted and at least half the independent benchmarks.	Demonstrates all benchmarks as defined.	Demonstrates independently the majority of benchmarks designed to be accomplished with assistance.

* 1st and 2nd trimester scores will be based on the benchmarks taught for each of the five standards

3. Use electronic resources to communicate, collaborate & retrieve information	Trimester Taught		
Independently…	1	2	3
3.1. Use URLs, bookmarks, and/or links to access the Internet			
3.2. Use search skills to retrieve information within an application.			
3.3. Understand and use website navigational tools and methods			
With Assistance…			
3.4. Use application to retrieve information about progress, goals and achievements			
3.5. Use appropriate search strategies to locate information on the Internet and in electronic media			

4. Use technology to create and deliver presentations	Trimester Taught		
With Assistance…	1	2	3
4.1. Create one or more curriculum-related multimedia projects			
4.2. Present one or more curriculum-related multimedia projects			

5. Demonstrate ethical behavior	Trimester Taught		
Independently…	1	2	3
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
With Assistance…	1	2	3
5.3. Understand and abide by copyright issues of electronic media			
5.4. Identify and cite Internet and electronic references in a bibliography			
5.5. Understand and abide by the Grant/PCS Acceptable Use Policy			
5.6. Apply the concept and understand the consequences of plagiarism and copyright infringement			

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Students Will…

1. **Use hardware and software to support learning and productivity**	Trimester Taught		
Independently…	1	2	3
1.1. Continue to develop formal keyboarding skills			
1.2. Insert information into a template (Word, PowerPoint, etc.)			
1.3. Use formatting features purposefully (text styles, colors, fonts and size)			
1.4. Spell-check a document			
1.5. Use left, center and right justification modes			
1.6. Insert graphics into a word processed document			
1.7. Copy, cut and paste text and graphics			
1.8. Utilize basic paint, text and graphic tools			
1.9. Toggle between two or more applications			
With Assistance…			
1.10. Use bullets and numbering			
1.11. Create tables			
1.12. Enter and manipulate data in spreadsheets			
1.13. Produce graphs and/or charts based on spreadsheet data			
1.14. Copy and paste text and/or graphics from one application to another			
1.15. Use peripheral devices such as digital cameras and scanners			
1.16. Select, crop, move and resize images			

2. **Apply vocabulary and strategies for using technology in a networked system**	Trimester Taught		
Independently…	1	2	3
2.1. Recognize and use desktop/toolbar icons and menus			
2.2. Understand editing and word processing terminology (cut, copy, paste, tab, graphic, etc.)			
2.3. Open files or applications correctly			
2.4. Save files to a specified folder on the server correctly			
2.5. Create folders for saving and organizing work in user/home folders			
2.6. Print to different locations			
With Assistance…			
2.7. Use "find file" features			
2.8. Use help tools (examples: menus, balloons, assistants, toolbars)			
2.9. Know basic network terms (server, account, login terms, etc)			
2.10. Recognize basic file name extensions (.ppt, .doc, .xls, .pub, etc.)			
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3.3. Understand and use website navigational tools and methods			
With Assistance…			
3.4. Use application to retrieve information about progress, goals and achievements			
3.5. Use appropriate search strategies to locate information on the Internet and in electronic media			
3.6. Access available electronic databases			
3.7. Evaluate and critique the quality and credibility of electronic information			

4. **Use technology to create and deliver presentations**	Trimester Taught		
With Assistance…	1	2	3
4.1. Create one or more curriculum-related multimedia projects			
4.2. Present one or more curriculum-related multimedia projects			

5. **Demonstrate ethical behavior**	Trimester Taught		
Independently…	1	2	3
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
5.3. Understand and abide by the Grant/PCS Acceptable Use Policy			
With Assistance…			
5.4. Identify and cite Internet and electronic references in a bibliography			
5.5. Apply the concept and understand the consequences of plagiarism and copyright infringement			
5.6. Understand and abide by copyright issues of electronic media copyright issues of electronic media			

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Students Will…

1. **Use hardware and software to support learning and productivity**	Trimester Taught		
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With Assistance…			
1.13. Create tables			
1.14. Enter and manipulate data in spreadsheets			
1.15. Produce graphs and charts based on spreadsheet data			
1.16. Use peripheral devices such as digital cameras and scanners			

2. **Apply vocabulary and strategies for using technology in a networked system**	Trimester Taught		
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2.1. Know basic parts of the computer by name			
2.2. Know basic network terms (server, login terms, etc.).			
2.3. Recognize and use desktop/toolbar icons and menus			
2.4. Recognize basic file name extensions (.ppt, .doc, .xls, .pub, etc.)			
2.5. Open files or applications correctly			
2.6. Save files to a specified folder on the server correctly			
2.7. Create folders for saving and organizing work in user/home folders			
2.8. Print to different locations			
2.9. Use "find file" features			
With Assistance			
2.10. Use help tools (examples: menus, balloons, assistants, toolbars)			
2.11. Apply strategies for identifying and solving routine hardware and software problems (examples: CTRL + ALT + DELETE, checking cable connections, etc.)			

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3. Use electronic resources to communicate, collaborate & retrieve information	Trimester Taught		
Independently…	**1**	**2**	**3**
3.1. Use URLs, bookmarks, and/or links to access the Internet			
3.2. Use search skills to retrieve information within an application.			
3.3. Use application to retrieve information about progress, goals and achievements			
3.4. Use appropriate search strategies to locate information on the Internet and in electronic media			
3.5. Understand and use website navigational tools and methods			
With Assistance…			
3.6. Access available electronic databases			
3.7. Use appropriate search strategies to locate information on the Internet and in electronic media			
3.8. Evaluate and critique the quality and credibility of electronic information			

4. Use technology to create and deliver presentations	Trimester Taught		
With Assistance…	**1**	**2**	**3**
4.1. Create one or more curriculum-related multimedia projects			
4.2. Present one or more curriculum-related multimedia projects			

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Independently…	**1**	**2**	**3**
5.1. Demonstrate appropriate behavior for technology use and show respect for technology equipment			
5.2. Understand consequences for misuse of technology			
5.3. Understand and abide by the Grant/PCS Acceptable Use Policy			
5.4. Identify and cite Internet and electronic references in a bibliography			
With Assistance…			
5.5. Understand and abide by copyright issues of electronic media copyright issues of electronic media			
5.6. Apply the concept and understand the consequences of plagiarism and copyright infringement			
5.7. Understand the need for protection against software and hardware vandalism (examples: altering or deleting software, having an awareness of viruses, etc.)			

Student Assessment Scores

1	2	3	4
Below Basic	**Basic**	**Proficient**	**Advanced**
Demonstrates less than half the benchmarks as defined.	Demonstrates all assisted and at least half the independent benchmarks.	Demonstrates all benchmarks as defined.	Demonstrates independently the majority of benchmarks designed to be accomplished with assistance.

* 1st and 2nd trimester scores will be based on the benchmarks taught for each of the five standards