Somers Point School District

Curriculum

Technology

Grade 2

July 2008

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Somers Point School District

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Acknowledgments

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Somers Point Schools
Mission and Beliefs

Mission

Empower each student to make responsible choices, meet challenges, achieve personal success, and to contribute to a global society as they apply the New Jersey Core Curriculum Standards to become autonomous, lifelong learners who are literate, problem solvers across all disciplines.

Beliefs

Beliefs: We believe that our empowered learners:

- Participate in educational programs that are designed to meet the needs of learners while providing challenging activities in the context of real life situations.
- Are aware of community issues and take part in activities to better their community.
- Acquire basic skills in obtaining information, thinking critically, solving problems and communicating effectively.
- Develop intellectual curiosity and the ability to access information as needed
- Become reflective learners that have an understanding of their own strengths and weaknesses.
- Develop the aptitudes and skills to adjust to a changing world and an unpredictable future.
- Are lifetime learners who value and accept learning as a continuing and dynamic process affecting all aspects of life.

PROGRAM PHILSOSOPHY, GOALS, AND BELIEFS

Philosophy

Technology is a tool to help students solve problems, create products, and build relationships. This tool can also facilitate the acquisition of grade level core curriculum standards and workplace readiness skills.

We believe that technology can:
-Improve student motivation, interest and attitude in learning.
-Prepare students for a global workplace.
-Address the needs of at-risk, low performing and special needs students.

Technology improves critical thinking and problem solving when:
- Students are taught to apply the process of problem solving and are then allowed opportunities to apply technology in development of solutions.

-Students work in collaborative groups while using computers to solve problems.

- Students use technology presentation and communication tools to present, publish, and share results of projects.

We ask ourselves the following questions as we build our technology curriculum and infrastructure:
-What information do teachers and students need to improve their work?
-What new relationships can improve learning?
-What authentic relationships can you imagine for students and educators?
-What technology do you want?

Technology, any modification of the natural world designed by human beings to solve human problems, enhance human life, or extend human capability, was identified by the United States Department of Labor as an essential workplace competency in a 1992 report called the Secretary's Commission on Achieving Necessary Skills (SCANS). SCANS stated that students should be able to select equipment and tools, apply technology to specific tasks, and maintain and troubleshoot equipment. The Department of Education recognized its importance by including technology in the original cross-content workplace readiness standards. In keeping with today's technological society, technological literacy has been further emphasized by its inclusion as a separate standards area which focuses on both computer and information literacy and technology education.

Standards, Strands and Cumulative Progress Indicators

The PDF version includes the entire published Core Curriculum Content Standards while the HTML version contains links to Standards' descriptive statements and lists of Strands and CPIs with linked resources.

PDF Version

New Jersey Core Curriculum Content Standards for Technological Literacy

Technology – 2nd Grade

Scope and Sequence

Quarter I	

I.   Technology vocabulary
a.   Properly name parts of the computer and utilize proper terms for on-screen items
	I. Uses of the computer.
	   a. Identify uses of technology in home and school.
	   b. Identify advantages and disadvantages.

I. Social and Ethical behaviors
   a. Demonstrates understanding of Acceptable Use Policy
   b. Understands guidelines regarding Netiquette	

Quarter II	

I.   Operating Systems
   a. Able to utilize a computer by logging in, navigating screens and logging off.
   b. Demonstrates appropriate use and care of computer hardware
	I. Operating Systems
	a. Reboots computer to handle minor problems.
	b. Uses passwords

I. Keyboarding a. Uses proper posture, identifies keys to be used with right and left hands	

Quarter III	

I. Computer icons
   a. Recognizes common icons
   b. Uses pull down menus and scroll bars
	I. Word processing
	   a. Uses capitals and lower case letters while typing a simple sentence.
	   b. Demonstrates ability to save work

I. Word processing
   a. Prints from an application retrieved from file
   b. Identifies printers available on computer	

Quarter IV	

I. Graphs
   a. inputs information and creates a simple graph
	I. Social and ethical responsibility
	   a. Demonstrates understanding of copyright materials on Internet
	   b. Identifies author and copyright information on a given web page

	Grade Level/Subject: 2nd/Technology	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.	
Suggested blocks of Instruction		Topic: Technology Vocabulary	
		Goal 1: The student will be able to properly name parts of the computer Goal 2: The student will be able to use proper vocabulary for on-screen items	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions / Enduring Understandings	Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment
1	8.1.4 A1 Use basic technology vocabulary.	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Have students label parts of the computer (whiteboard/worksheets)** **Materials:** **Computers** **Whiteboard** **Worksheets** **Assessment:** Completion of worksheet/accurate labeling on whiteboard Teacher observation. 4th grade assessment

	Grade Level/Subject: **2nd/ Technology**	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
Suggested blocks of Instruction		**Topic: Uses of the computer**
		<u>**Goal 3:**</u> The student will be able to identify uses of technology in home and school. <u>**Goal 4:**</u> The student will be able to identify advantages and disadvantages of technology.
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**

2	8.1.4 B.1 Discuss the common uses of computer applications and identify their advantages and disadvantages	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Class discussion regarding common uses. Small group discussion regarding advantages and disadvantages.** **Materials:** **Paper** **Pencil** **Assessment:** Teacher observation 4th grade assessment

	Grade Level/Subject: **2nd/Technology**	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
Suggested blocks of Instruction		**Topic: Social and Ethical behaviors**
		Goal 5: The student will be able to demonstrate understanding of Acceptable Use Policy **Goal 6:** Understands guidelines regarding Netiquette
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**
2	8.1.4 B.2 & B.3 Recognize and practice responsible social and ethical behaviors when using technology, and understand the consequences of inappropriate use including: • Internet access • Copyright materials • On-line library resources • Personal security and safety issues. Practice appropriate Internet etiquette.	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Visit various age appropriate websites. Discuss appropriate use and consequences of inappropriate use.** **Materials:** **Age appropriate websites** **Computers** **Assessment:** Teacher observation 4th Grade assessment

	Grade Level/Subject: **2nd/Technology**	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
Suggested blocks of Instruction		**Topic: Operating systems**
		Goal 7: **The student will be able to utilize a computer by logging in, navigating screens and logging off.** **Goal 8:** **The student will be able to demonstrate appropriate use and care of computer hardware.**
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**

	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions / Enduring Understandings	Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment
3	8.1.4 A.2, Use basic features of an operating system (e.g., accessing programs, identifying and selecting a printer, finding help).	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Model for students how to log in, navigate and log off. Have students practice.** **Materials:** **Computers** **Assessment:** Teacher observation 4th Grade assessment

	Grade Level/Subject: **2nd/ Technology**	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning
Suggested blocks of Instruction		**Topic: Operating Systems**
		Goal 9: The student will be able to handle minor computer problems. **Goal 10:** The student will be able to use passwords
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**

| 2 | 8.1.4 B.2 & B.10

Recognize and practice responsible social and ethical behaviors when using technology, and understand the consequences of inappropriate use including:

• Personal security and safety issues

Identify basic hardware problems and solve simple problems. | **Essential Questions:**
• In a world of constant technological change, what skills should we learn?
• How do I choose which technological tools to use and when it is appropriate to use them?
• How can I transfer what I know to new technological situations/experiences?
• What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented?

Enduring Understandings:
• Technology is constantly changing and requires continuous learning of new skills.
• Selection of technology should be based on personal and/or career needs assessment.
• A tool is only as good as the person using it.
• Technology use can have positive or negative impact on both users and those affected by their use. | **Learning Activities**
• **Model how to reboot computer. Have students practice. Discuss importance of passwords and privacy rights. Have students practice logging in with passwords.**
Materials:
Computers
Passwords

Assessment:
Teacher Observation
4th Grade Assessment |

		Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning	
	Grade Level/Subject: **2nd/ Technology**	**Topic: Keyboarding**	
		Goal 11: The student will be able to use proper posture, identify keys to be used with right and left hands.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**
4	8.1.4 A.2, A.3 Use basic features of an operating system i.e. accessing programs Input and access text and data, using appropriate keyboarding techniques	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Students will access keyboarding program. Model proper keyboarding techniques and allow students to practice.** **Materials:** **Computers** **Keyboarding program** **Assessment:** Teacher observation 4th Grade assessment

Suggested blocks of Instruction

	Grade Level/Subject:	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning	
Suggested blocks of Instruction	2nd/Technology	Topic: Computer Icons	
		Goal 12: The student will be able to recognize common icons. Goal 13: The student will be able to use pull down menus and scroll bars.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions / Enduring Understandings	Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment
2	8.1.4 A.2 & A.9 Use basic features of an operating system i.e. accessing programs, finding help. Use basic computer icons	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Student will access paint through a desktop icon. Model how students will manipulate the mouse to paint a picture, using drop down menus and the scroll bar.** **Materials:** **Computers** **Paint program** **Assessment:** Teacher observation Students will print the picture they painted 4th Grade assessment

	Grade Level/Subject: **2nd/Technology**	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
Suggested blocks of Instruction		**Topic: Word Processing**
		Goal 14: The student will be able to use capitals and lower case letters while typing a simple sentence. **Goal 15:** The student will be able to demonstrate ability to save work.
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**
3	8.1.4 A.2, A.3, A.4, A.9 Use basic features of an operating system Input and access text and data, using appropriate keyboarding techniques Produce a simple finished document using word processing software Use basic computer icons	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Students will access computers, click on word processing icon, use home row keys to type simple sentences provided for them by the teacher, save work to folder.** **Materials:** **Computer** **Word processing software** **Assessment:** Student successfully save document into folder. Teacher observation 4th Grade assessment

	Grade Level/Subject:	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
Suggested blocks of Instruction	**2nd/Technology**	
		Topic: Word Processing
		Goal 16: The student will be able to print from an application retrieved from file **Goal 17:** The student will be able to identify printers available on computer

	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**
2	8.1.4 A.2, A.3, A.4, A.9 Use basic features of an operating system i.e. identifying and selecting a printer Input and access text and data, using appropriate keyboarding techniques Produce a simple finished document using word processing software Use basic computer icons	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Model for students how to access files to retrieve work. Have student retrieve work, edit, select printer and print.** **Materials:** **Computers** **Word processing software** **Paper** **Assessment:** Student will successfully access file to retrieve work and print. Teacher observation 4th Grade assessment

	Grade Level/Subject: **2ⁿᵈ/Technology**	**Big Idea:** A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
		Topic: Graphs
		Goal 18: The student will be able to input information and create a simple graph

Suggested blocks of Instruction	**Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)** **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**
3	8.1.4 A.2, A.3, A.4, A.5, A.9 Use basic features of an operating system Input and access text and data, using appropriate keyboarding techniques Produce a simple finished document using word processing software Produce and interpret a simple graph or chart by entering and editing data on a prepared spreadsheet template. Use basic computer icons	**Essential Questions:** - In a world of constant technological change, what skills should we learn? - How do I choose which technological tools to use and when it is appropriate to use them? - How can I transfer what I know to new technological situations/experiences? - What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** - Technology is constantly changing and requires continuous learning of new skills. - Selection of technology should be based on personal and/or career needs assessment. - A tool is only as good as the person using it. - Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** **Students will count objects and make note of amounts. Model how to input into spreadsheet and create graph. Have students open spreadsheet software, input amounts and create graph. Students will save to file to retrieve and print at a later time.** **Materials:** **Computers** **Spreadsheet software** **Countable objects** **Assessment:** Successful completion of graph Teacher observation 4ᵗʰ Grade assessment

	Grade Level/Subject: **2nd/Technology**	Big Idea: A computer is an adaptable tool for organizing information and solving problems that facilitates lifelong learning.
		Topic: Social and Ethical responsibility
		Goal 19: The student will be able to demonstrate understanding of copyright materials on Internet **Goal 20:** The student will be able to identify author and copyright information on a given web page
Suggested blocks of Instruction	**Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)** **The student will be able to:**	**Essential Questions / Enduring Understandings**	**Learning Activities including technology integration, interdisciplinary activities, and differentiation methods / Materials / Assessment**
2	8.1.4 B.4, Recognize the ethical and legal implications of plagiarism of copyrighted materials.	**Essential Questions:** • In a world of constant technological change, what skills should we learn? • How do I choose which technological tools to use and when it is appropriate to use them? • How can I transfer what I know to new technological situations/experiences? • What are my responsibilities for using technology? What constitutes misuse and how can it best be prevented? **Enduring Understandings:** • Technology is constantly changing and requires continuous learning of new skills. • Selection of technology should be based on personal and/or career needs assessment. • A tool is only as good as the person using it. • Technology use can have positive or negative impact on both users and those affected by their use.	**Learning Activities** • **Visit various age appropriate websites. Point out author, copyright information. Discuss implications of plagiarism and consequences. Have students visit pre-determined websites and note author and copyright information.** **Materials:** **Computer** **Age-appropriate websites** **Worksheet** **Assessment:** Students will successfully note author and copyright information. Teacher observation 4th Grade assessment

2nd Grade Technology

COURSE BENCHMARKS

The student will be able to .**.**

Quarter I
Demonstrate knowledge of technology vocabulary, uses of the computer and social and ethical behaviors

Quarter II
Demonstrate the ability to manipulate the basic operation of a computer.

Quarter III
Demonstrate the ability to manipulate a word processing program.

Quarter IV
Demonstrate the ability to manipulate a spreadsheet program and recognize the author and copyright information on a webpage.