

## TECHNOLOGICAL LITERACY CURRICULUM GUIDE AUGUST 2006 – 5<sup>th</sup> Grade

Unit Concept or Theme	NJCCCS Standard	Instructional Objectives: Knowledge, Skills, Abilities	Content: Units of Study & Lessons	Instructional Methods: Activities & Experiences	Key Vocabulary Per unit	Assessment/ Evaluation Instrument
Basic Computer Tools and Skills	8.1.A-1	<ul style="list-style-type: none"> <li>Use appropriate technology vocabulary.</li> </ul>	Unit 1 – 8-week session.	Review and refer to major parts of the computer.	<ul style="list-style-type: none"> <li>Central Processing Unit</li> <li>Input Device</li> <li>Output Device</li> <li>Mouse</li> <li>Scanner</li> <li>Monitor</li> <li>Modem</li> <li>Floppy Disk Drive</li> <li>Hard Disk Drive</li> <li>Compact Disc Drive – CD</li> <li>Flash Drive</li> <li>Software</li> <li>Hardware</li> <li>Spreadsheet</li> <li>Database</li> <li>Graphics</li> <li>Desktop Publishing</li> <li>Favorites</li> <li>Vocabulary words</li> </ul>	Students orally identify major parts of a computer.
	8.1.A-2	<ul style="list-style-type: none"> <li>Use common features of an operating system (e.g., creating and organizing files and folders).</li> </ul>		Students will create their own folders within programs.		Student-produced projects containing all skills learned.
	8.1.A-3	<ul style="list-style-type: none"> <li>Demonstrate effective input of text and data, using touch keyboarding with proper technique.</li> </ul>		Students will peer conference for assistance.		Project-based assessments using rubrics.
	8.1.A-4	<ul style="list-style-type: none"> <li>Input and access data and text efficiently and accurately through proficient use of other input devices, such as the mouse.</li> </ul>		Students will daily practice keyboarding using the home row and appropriate techniques for 10 minutes each session for 8 weeks.		Student observation and feedback.
	8.1.A-5	<ul style="list-style-type: none"> <li>Create documents with advanced text-formatting and graphics using word processing.</li> </ul>		Students will identify the different shapes and purposes of the mouse.		Students save and organize their own files.
	8.1.A-6	<ul style="list-style-type: none"> <li>Create a file containing customized information by merging documents.</li> </ul>		Students will be		
	8.1.A-7	<ul style="list-style-type: none"> <li>Construct a simple spreadsheet, enter data, and interpret the information.</li> </ul>				
	8.1.A-8	<ul style="list-style-type: none"> <li>Design and produce a basic multimedia project.</li> </ul>				
	8.1.A-9	<ul style="list-style-type: none"> <li>Plan and create a simple</li> </ul>				

	<p>8.1.A-10</p> <p>8..1.A-11</p> <p>8..1.A-12</p>	<p>database, define fields, input data, and produce a report using sort and query.</p> <ul style="list-style-type: none"> <li>• Use network resources for storing and retrieving data.</li> <li>• Choose appropriate electronic graphic organizers to create, construct, or design a document.</li> <li>• Create, organize and manipulate shortcuts.</li> </ul>	<p>able to select and launch applications.</p> <p>Students will be able to work with a particular application's menu to accomplish their tasks.</p> <p>Students will be learn the basics of word processing.</p> <p>Students will have created electronic page layouts for desktop publishing in newsletters, flyers, etc. This includes the combination of text and graphics.</p> <p>Students will be able to access and manipulate information from databases on the Internet.</p> <p>Students will be able to manipulate</p>	<p>according to grade level.</p>	
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				<p>numbers using a spreadsheet for statistical analysis, accounting, or number crunching applications.</p> <p>Students will be able to electronically manipulate graphic images.</p> <p>Students will be comfortable sending e-mail.</p>		
Application of Productivity Tools	<p>8.1.B-1</p> <p>8.1.B-2</p> <p>8.1.B-3</p> <p>8.1.B-4</p>	<ul style="list-style-type: none"> <li>• Demonstrate an understanding of how changes in technology impact the workplace and society.</li> <li>• Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.</li> <li>• Explain the purpose of an Acceptable Use Policy and the consequences of inappropriate use of technology.</li> <li>• Describe and practice safe</li> </ul>	Unit 1 – 8-week session.	<p>Students will study changes in technology through the Internet and films.</p> <p>Students will understand the Acceptable Use Policy that they signed at Ventnor.</p> <p>Students will review safe Internet practice and usage</p>	<ul style="list-style-type: none"> <li>• Inappropriate</li> <li>• Acceptable</li> <li>• Safe</li> <li>• Etiquette</li> <li>• Database</li> <li>• Research</li> <li>• Hardware</li> <li>• Security</li> <li>• Search</li> </ul>	<p>Student-produced projects containing all skills learned.</p> <p>Project-based assessments using rubrics.</p> <p>Student observation and feedback.</p>

	<p>8.1.B-5</p> <p>8.1.B-6</p> <p>8.1.B-7</p> <p>8.1.B-8</p> <p>8.1.B-9</p> <p>8.1.B-10</p>	<p>Internet usage.</p> <ul style="list-style-type: none"> <li>• Describe and practice “etiquette” when using the Internet and electronic mail.</li> <li>• Choose appropriate tools and information resources to support research and solve real world problems, including but not limited to: On-line resources and databases – Search engines and subject directories</li> <li>• Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources.</li> <li>• Use computer applications to modify information independently and/or collaboratively to solve problems.</li> <li>• Identify basic hardware problems and demonstrate the ability to solve common problems.</li> <li>• Determine when technology tools are appropriate to solve a problem and make a decision.</li> </ul>		<p>from Internet sources such as <a href="http://www.netSMART.org">www.netSMART.org</a> and <a href="http://disney.go.com/surfswell">http://disney.go.com/surfswell</a>.</p> <p>Students will view web pages that have been teacher selected to increase the curriculum resources.</p> <p>Students will learn how to formulate searches.</p> <p>Students will browse online “web sites” for research purposes.</p> <p>Students will complete specific projects related to school activities.</p> <p>Students will create short web quests to guide content area research.</p>		
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Technology Education – Nature and Impact of Technology	8.2.A-1  8.2.A-2  8.2.A-3  8.2.A-4  8.2.A-5	<ul style="list-style-type: none"> <li>Describe the nature of technology and the consequences of technological activity.</li> <li>Describe how components of a technological product, system, or environment interact.</li> <li>Describe how one technological innovation can be applied to solve another human problem that enhances human life or extends human capability.</li> <li>Describe how technological activity has an affect on economic development, political actions, and cultural change.</li> <li>Explain the cultural and societal effects resulting from the dramatic increases of knowledge and information available today.</li> </ul>	Unit 1 – 8-week session.	Students will view videos and do research on the Internet.	<ul style="list-style-type: none"> <li>Economic</li> <li>Cultural</li> <li>Political</li> <li>Societal</li> </ul>	<p>Assess student knowledge of films viewed.</p> <p>Student observation and feedback.</p> <p>Guided questions to identify video main ideas.</p>
Technology Education – Design Process and Impact Assessment	8.2.B-1  8.2.B-2	<ul style="list-style-type: none"> <li>Demonstrate and explain how the design process is not linear.</li> <li>Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.</li> </ul>	Unit 1 – 8-week session.	Students will do project-based activities.	<ul style="list-style-type: none"> <li>Analyze</li> <li>Design</li> <li>Model</li> <li>Solution</li> </ul>	<p>Student-produced projects containing all skills learned.</p> <p>Project-based assessments using rubrics.</p> <p>Student observation and</p>

	8.2.B-3	<ul style="list-style-type: none"> <li>Identify a technological problem and use the design process to create an appropriate solution.</li> </ul>				feedback.
	8.2.B-4	<ul style="list-style-type: none"> <li>Describe how variations in resources can affect solutions to a technological problem.</li> </ul>				
	8.2.B-5	<ul style="list-style-type: none"> <li>Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.</li> </ul>				
Technology Education – Systems in the Designed World	8.2.C-1	<ul style="list-style-type: none"> <li>Explain technological advances in medical, agricultural, energy and power, information and communication, transportation, manufacturing, and construction technologies.</li> </ul>	Unit 1 – 8-week session.	Students will do project-based activities.	<ul style="list-style-type: none"> <li>Analyze</li> <li>Design</li> <li>Model</li> <li>Solution</li> </ul>	<p>Student-produced projects containing all skills learned.</p> <p>Project-based assessments using rubrics.</p> <p>Student observation and feedback.</p>
	8.2.C-2	<ul style="list-style-type: none"> <li>Explain reasons why human-designed systems, products, and environments need to be monitored, maintained, and improved to ensure safety, quality, cost efficiency, and sustainability.</li> </ul>				
	8.2.C-3	<ul style="list-style-type: none"> <li>Explain the functions and interdependence of subsystems such as waste disposal, water purification,</li> </ul>				

		electrical, structural, safety, climatic control, and communication.				
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**Implementation Strategies:** (Student & teacher materials, professional development, parent support, test preparation infusion, classroom organization & management, teaching strategies, team building & the establishment of partnership inside & outside the school, formative & summative assessments including progress monitoring, writing portfolios, student products & presentations). **Please list or write a narrative outlining your implementation strategy.**

These computer standards will be met by using a variety of computer programs including:

- Microsoft Office
  - Word
  - PowerPoint
- Print Shop
- Inspiration
- Type to Learn
- Internet

Fifth graders will focus on MS PowerPoint applications, Internet, and graphic skills. Keyboarding technique will be stressed.

Students will be expected to develop skills in the use of information, up-to-date educational technology, and other tools to improve learning, achieve goals, and produce products and presentations – both in the computer lab and in their individual classrooms.

In order to show films (DVDs), I will need to have “Safari” installed in the Middle School Laboratory. We will also need to purchase appropriate DVDs or order some from the county library. These films should specifically address the role of computers in society.

Because of the constantly changing nature of technology, continuing professional development is a necessity.