Brookings School District 5-1
Fourth Grade Technology Curriculum
2010-2011

Unit: Nature, Concepts and Systems (Systems Thinking Interactions and Design)

Indicator 1: Students understand the history and progression of technology in relations to the development and design of future technology.

Blooms Level	**Standard:**	**Learning Target(s)**	**Content/Skills**	**Resources/ Assessments**
Analysis	4.NC.1.1: Distinguish how changes in technological tools affect outcomes.	• I can explain how changes in technological tools affect outcomes. • I can explain how creative thinking and economic and cultural influences shape technology.	Faster computers aid in more easily acquiring a larger amount of data. Charts and graphs are more commonly made by using software programs rather than by hand. Calculators are commonly used in Math. The faster the tool the more productivity gained. (ie. combine vs. hand tools).	*Computer Basics* Unit *Computer History* Unit Brainpop videos / quizzes Computer History webpage Inventions and Inventors webpage
Indicator 2: Students analyze the parts of a technological system in terms of input, process, output, and feedback.				
Application Knowledge	4.NC.2.1: Determine the effects of feedback in the system model. 4.N.C.2.2: Identify the resources needed in a system in order for it to work.	• I can determine the effects of feedback in the systems thinking model. • I can identify the resources of systems, such as a food chain or the water cycle.	Feedback can lead to changes in system (ie. sudience reactions, web counter). Science 4.L.3.1 (food chains) Science 4.E.1.1 (water cycle	Steps of the Scientific Method Scientific Thinking webpage Food Chains and Food Webs Water Cycle

Indicator 3: Students analyze the relationships and the connection between technologies in different fields of study and how they apply to communities.				
Application	4.NC.3.1: Identify examples of how technology changes have affected society.	• I can identify examples of how technology changes have affected society.	Development of technology has lead to changes in our society. Science 4.S.1.2 (inventions)	*Computer History* unit Computer History webpage Inventions and Inventors webpage
Indicator 4: Students understand the purpose and demonstrate the use of the design process in problem solving.				
Synthesis	4.NC.4.1: Adapt a structured method to produce a variety of solutions to a given problem using the design process.	• I can solve a problem or complete a task by using a step-by-step design process.	The steps of the design process are: 1. Define the problem 2. Gather information 3. Create alternative solutions 4. Select optimum solution 5. Develop and produce solution 6. Test solution 7. Report results Science 4.S.1.1 (inventions) Science 4.L.1.1 (body systems)	Steps of the Scientific Method Scientific Thinking webpage

Unit: Social Interaction

Indicator 1: Students understand the safe, ethical, legal and societal issues related to technology.

Bloom's Level	**Standard**	**Learning Targets**	**Concepts/Skills**	**Resources/ Assessment**
Evaluation	4.SI.1.1: Compare and contrast consequences of illegal and unethical technology use.	• I can identify the difference between ethical (right) and unethical (wrong) usage of technology. • I can define consequences of	Technology can be used in both good and bad ways. Consequences result when technology is used in bad ways.	*Digital Citizenship* Unit Digital Citizenship webpage Brainpop videos / quizzes

Synthesis Application Knowledge	4.SI.1.2: Communicate issues relating to online safety. 4.SI.1.3: Determine where and when to cite a source of information. 4.SI.1.4: Identify cultural issues relating to technology	unethical and illegal uses of technology. • I can explain viruses, social networking sites, and communication etiquette. • I can explain how background differences affect society's view of legal and illegal consequence.	Social Studies 4.C.2.1 (citizenship) Online safety is important. Information from a source needs to be cited. Distinguish advantages and disadvantages of technology on society	CyberPig Adventures
Indicator 2: Students investigate the advantages and disadvantages of technology.				
Analysis	4.SI.2.1: Distinguish advantages and disadvantages of technology on society.	• I can identify examples of advantages and disadvantages of the use of technology.	Technology has advantages and disadvantages.	*Digital Citizenship* Unit Digital Citizenship webpage

Unit: Information and Communication Tools

Indictor 1: Students recognize and demonstrate skills in operating technological systems

Blooms Level	**Standard:**	**Learning Target(s)**	**Content/Skills**	**Resources/ Assessment**
Application Comprehension	4.CT.1.1: Demonstrate how to use parts of Application windows and menu options. 4.CT.1.2: Demonstrate the correct use of all letters, punctuation, symbol and command keys using proper techniques.	• I can create, save, retrieve, and organize files and folders. • I can use different parts of Application Windows. • I can use toolbars and menu options. • I can demonstrate the correct use of all letters, punctuation, symbol, and common command keys. • I can use touch typing techniques in timed writings.	Set font, size, color, and use bold, italics, and underline Copy, cut, paste Insert text boxes, clip art, pictures, and shapes Adjust page orientation, insert bullets, add page borders, and alignment Spell check Use correct finger placement	Integrated Projects Keyboarding Lessons *Type to Learn 4* Keyboarding webpage

Application Analysis	4.CT.1.3 Use input/output devices and other peripherals. 4.CT.1.4 Manage and maintain files and folders independently. ✓ Compare and contrast different ways of accessing commonly used commands.	• I can use input/output devices and other peripherals. • I can manage and maintain folders and files, • I can use multiple ways to complete the same function, such as print and save.	for all letter keys and the main punctuation marks Type 12 words per minute using correct finger placement Use a digital camera, scanner, video camera as needed for projects Create, save, retrieve, and organize files and folders Use shortcut keys for printing and saving	
Indicator 2: Students use technology to enhance learning, extend capability and promote creativity.				
Application	4.CT.2.1: Use presentation application to develop a product.	• I can develop documents in presentation applications.	Create presentations using applications such as Power Point and Photo Story	Integrated Projects
Indicator 3: Students evaluate and select information tools based on the appropriateness to specific tasks.				
Comprehension	4.CT.3.1: Explain how problems are solved through innovations.	• I can identify how and why innovations occur. • I can compare different fields of innovations. • I can apply the design process to create an innovation.	Problems are solved through innovation, ie. phone / communication, word processing /write a letter.	*Computer History* Unit Computer History webpage

Unit: Information and Communication Processes

Indicator 1: Students understand the purpose of information technologies to communicate with a variety of collaborators.

Blooms Level	Standard:	Learning Target(s)	Content/Skills	Resources/

				Assessment
Application	4.CP.1.1: Utilize virtual collaboration environments to contribute within a group to the production of a digital output.	• I can communicate ideas, opinions, or revisions through electronic communication devices.	Communicate ideas and thoughts on a blog or other collaboration environment.	Class blogs Blogs webpage

Indicator 2: Students exchange information and ideas for an identified purpose through information technologies.

Knowledge	4.CP.2.1: Select the best way to deliver information and ideas based on the audience.	• I can identify factors that influence the type of presentation to use for an audience.	Create a presentation geared to a specific audience.	Integrated Projects

Unit: Information Literacy and Decision Making

Indicator 1: Students use technology to locate and acquire information.

Blooms Level	**Standard:**	**Learning Target(s)**	**Content/Skills**	**Resources/ Assessment**
Synthesis	4.IL.1.1: Given a general topic predict what key details will be needed to refine a search in a database for a specific purpose.	• I can find relevant simple search results for a broad topic.	Use a search engine to find relevant information for a topic.	*Websites…Which Should You Trust* Webquest Research Sites webpage *Welcome to the Web* Lessons 1-7 Integrated Projects

Indicator 2: Students determine the reliability and relevancy of information

Evaluation	4.IL.2.1:	• I can evaluate the	Determine the relevance of	*Websites…Which*

	Evaluate the relevancy of the resource.	relevancy of a resource.	search results.	*Should You Trust* Webquest Research Sites webpage *Welcome to the Web* Lessons 1-7 Integrated Projects