Tech 3-5 (2015)

Standards & Units	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
NJ Core Curriculum Content Standards > Technology > Grades: 3-5(2014)									
{TECH.8.1.5} All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.									
{TECH.8.1.5.A} Students demonstrate a sound understanding of technology concepts, systems and operations.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
3rd grade, Unit #3, Technology, Internet Research					■				
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.1.5.A.CS1} Understand and use technology systems									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
4th grade, Unit #1, Technology, Research and Information Literacy	■								
{TECH.8.1.5.A.4} Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.									
4th grade, Unit #1, Technology, Research and Information Literacy	■								
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.A.6} Export data from a database into a spreadsheet; analyze and produce a report that explains the analysis of the data.									
4th grade, Unit #1, Technology, Research and Information Literacy	■								
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.A.2} Format a document using a word processing application to enhance text and include graphics, symbols and/ or pictures.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
3rd grade, Unit #3, Technology, Internet Research					■				
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.A.1} Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems									
4th grade, Unit #1, Technology, Research and Information Literacy	■								
4th grade, Unit #2, Technology, Interviews		■							
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.1.5.A.3} Use a graphic organizer to organize information about problem or issue.									
4th grade, Unit #1, Technology, Research and Information Literacy	■								
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.A.CS2} Select and use applications effectively and productively.									
4th grade, Unit #1, Technology, Research and Information Literacy	■								
{TECH.8.1.5.A.5} Create and use a database to answer basic questions.									
4th grade, Unit #1, Technology, Research and Information Literacy	■								
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.B} Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
3rd grade, Unit #3, Technology, Internet Research					■				
{TECH.8.1.5.B.CS2} Create original works as a means of personal or group expression.									
4th grade, Unit #2, Technology, Interviews		■							
{TECH.8.1.5.B.1} Collaborative to produce a digital story about a significant local event or issue based on first-person interviews.									
4th grade, Unit #2, Technology, Interviews		■							
{TECH.8.1.5.B.CS1} Apply existing knowledge to generate new ideas, products, or processes.									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting								■	
{TECH.8.1.5.C} Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
{TECH.8.1.5.C.CS1} Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.1.5.C.CS2} Communicate information and ideas to multiple audiences using a variety of media and formats.									
4th grade, Unit #2, Technology, Interviews		■							
{TECH.8.1.5.C.CS4} Contribute to project teams to produce original works or solve problems									
3rd grade, Unit #3, Technology, Internet Research					■				
3rd grade, Unit #5, Technology, Computer-Based Test Prep							■		
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.1.5.C.CS3} Develop cultural understanding and global awareness by engaging with learners of other cultures.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
{TECH.8.1.5.C.1} Engage in online discussions with learners of other cultures to investigate a worldwide issue from multiple perspectives and sources, evaluate findings and present possible solutions, using digital tools and online resources for all steps.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
{TECH.8.1.5.D} Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.									
4th grade, Unit #3, Technology, Design Process					■				
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.D.2} Analyze the resource citations in online materials for proper use.									
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.D.CS2} Demonstrate personal responsibility for lifelong learning									
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.D.CS3} Exhibit leadership for digital citizenship.									
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.D.4} Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media.									
3rd grade, Unit #1, Technology, Digital Citizenship	■								
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.D.3} Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media.									
3rd grade, Unit #1, Technology, Digital Citizenship	■								
3rd grade, Unit #2, Technology, Collaboration with Technology			■						
5th Grade, Unit #2, Technology, Digital Citizenship				■					
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.1.5.D.CS1} Advocate and practice safe, legal, and responsible use of information and technology.									
4th grade, Unit #2, Technology, Interviews		■							
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.D.1} Understand the need for and use of copyrights.									
3rd grade, Unit #1, Technology, Digital Citizenship	■								
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.1.5.E} Students apply digital tools to gather, evaluate, and use information.									
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.1.5.E.CS3} Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.									
3rd grade, Unit #1, Technology, Digital Citizenship	■								
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.1.5.E.CS1} Plan strategies to guide inquiry.									
4th grade, Unit #2, Technology, Interviews		■							
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.1.5.E.1} Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks.									
3rd grade, Unit #3, Technology, Internet Research					■				
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.E.CS2} Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.									
3rd grade, Unit #1, Technology, Digital Citizenship	■								
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
5th Grade, Unit #4, Technology, Species on the Edge								■	

{TECH.8.1.5.F} Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.									
3rd grade, Unit #5, Technology, Computer-Based Test Prep							■		
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.F.1} Apply digital tools to collect, organize, and analyze data that support a scientific finding.									
3rd grade, Unit #4, Technology, Environment/Recycling						■			
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.F.CS4} Use multiple processes and diverse perspectives to explore alternative solutions									
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.F.CS1} Identify and define authentic problems and significant questions for investigation.									
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.F.CS2} Plan and manage activities to develop a solution or complete a project.									
4th grade, Unit #2, Technology, Interviews		■							
4th grade, Unit #3, Technology, Design Process					■				
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.1.5.F.CS3} Collect and analyze data to identify solutions and/or make informed decisions.									
5th Grade, Unit #1, Technology, Research & Productivity Software	■								
{TECH.8.2.5} All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.									
{TECH.8.2.5.A} Technology systems impact every aspect of the world in which we live.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.A.5} Identify how improvement in the understanding of materials science impacts technologies.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.A.3} Investigate and present factors that influence the development and function of products and systems, e.g., resources, criteria and constraints.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.A.1} Compare and contrast how products made in nature differ from products that are human made in how they are produced and used.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.A.CS2} The core concepts of technology.									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting								■	
{TECH.8.2.5.A.CS3} The relationships among technologies and the connections between technology and other fields of study.									
5th Grade, Unit #4, Technology, Species on the Edge								■	
{TECH.8.2.5.A.CS1} The characteristics and scope of technology.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.A.4} Compare and contrast how technologies have changed over time due to human needs and economic, political and/ or cultural influences.									
3rd grade, Unit #6, Technology, Technology Evolution									■
{TECH.8.2.5.A.2} Investigate and present factors that influence the development and function of a product and a system.									
3rd grade, Unit #6, Technology, Technology Evolution									■
{TECH.8.2.5.B} Knowledge and understanding of human, cultural and society values are fundamental when designing technology systems and products in the global society.									
{TECH.8.2.5.B.CS2} The effects of technology on the environment.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.B.1} Examine ethical considerations in the development and production of a product through its life cycle.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.B.5} Explain the purpose of intellectual property law.									
3rd grade, Unit #4, Technology, Environment/Recycling						■			
{TECH.8.2.5.B.3} Investigate ways that various technologies are being developed and used to reduce improper use of resources.									
3rd grade, Unit #4, Technology, Environment/Recycling						■			
{TECH.8.2.5.B.2} Examine systems used for recycling and recommend simplification of the systems and share with product developers.									
3rd grade, Unit #4, Technology, Environment/Recycling						■			
{TECH.8.2.5.B.CS3} The role of society in the development and use of technology.									
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.2.5.B.CS1} The cultural, social, economic and political effects of technology.									
5th Grade, Unit #2, Technology, Digital Citizenship				■					
{TECH.8.2.5.B.4} Research technologies that have changed due to society's changing needs and wants.									
3rd grade, Unit #6, Technology, Technology Evolution									■
{TECH.8.2.5.B.CS4} The influence of technology on history.									
3rd grade, Unit #6, Technology, Technology Evolution									■
{TECH.8.2.5.B. 6} Compare and discuss how technologies have influenced history in the past century.									
3rd grade, Unit #6, Technology, Technology Evolution									■
{TECH.8.2.5.C} The design process is a systematic approach to solving problems.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.C.5} Explain the functions of a system and subsystems.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.C.CS1} The attributes of design.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.C.2} Explain how specifications and limitations can be used to direct a product's development.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.C.CS2} The application of engineering design.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.C.7} Work with peers to redesign an existing product for a different purpose.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.C.6} Examine a malfunctioning tool and identify the process to troubleshoot and present options to repair the tool.									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting								■	
{TECH.8.2.5.C.CS3} The role of troubleshooting, research and development, invention and innovation and experimentation in problem solving.									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting								■	
{TECH.8.2.5.C.1} Collaborate with peers to illustrate components of a designed system.									
4th grade, Unit #3, Technology, Design Process					■				
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.C.3} Research how design modifications have lead to new products.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.C.4} Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.D} The designed world is the product of a design process that provides the means to convert resources into products and systems.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.D.2} Evaluate and test alternative solutions to a problem using the constraints and trade-offs identified in the design process to evaluate potential solutions.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.D.CS3} Assess the impact of products and systems.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.D.6} Explain the positive and negative effect of products and systems on humans, other species and the environment, and when the product or system should be used.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.D.3} Follow step by step directions to assemble a product or solve a problem.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.D.1} Identify and collect information about a problem that can be solved by technology, generate ideas to solve the problem, and identify constraints and trade-offs to be considered.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.D.CS2} Use and maintain technological products and systems.									
4th grade, Unit #3, Technology, Design Process					■				
{TECH.8.2.5.D.7} Explain the impact that resources such as energy and materials used in a process to produce products or system have on the environment.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.D.4} Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved.									
5th Grade, Unit #3, Technology, Innovation						■			
{TECH.8.2.5.D.CS1} Apply the design process.									

5th Grade, Unit #3, Technology, Innovation									
{TECH.8.2.5.D.5} Describe how resources such as material, energy, information, time, tools, people and capital are used in products or systems.									
4th grade, Unit #3, Technology, Design Process									
{TECH.8.2.5.E} Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.									
{TECH.8.2.5.E.CS1} Computational thinking and computer programming as tools used in design and engineering.									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting									
{TECH.8.2.5.E.4} Use appropriate terms in conversation (e.g., algorithm, program, debug, loop, events, procedures, memory, storage, processing, software, coding, procedure, and data).									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting									
{TECH.8.2.5.E.1} Identify how computer programming impacts our everyday lives.									
3rd grade, Unit #4, Technology, Environment/Recycling									
{TECH.8.2.5.E.2} Demonstrate an understanding of how a computer takes input of data, processes and stores the data through a series of commands, and outputs information.									
4th grade, Unit #4, Technology, Technology Design & Troubleshooting									
{TECH.8.2.5.E.3} Using a simple, visual programming language, create a program using loops, events and procedures to generate specific output.									
3rd grade, Unit #4, Technology, Environment/Recycling									