# 2014 New Jersey Core Curriculum Content Standards - Technology

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| **Content Area** | | **Technology** | | |
| **Standard** | | **8.1 Educational Technology: 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.** | | |
| **Strand** | | **A. Technology Operations and Concepts:** *Students demonstrate a sound understanding of technology concepts, systems and operations.* | | |
| **Grade**  **Level**  **bands** | **Content Statement**  **Students will:** | | **Indicator** | **Indicator** |
| **P** | Understand and use technology systems. | | 8.1.P.A.1 | Use an input device to select an item and navigate the screen |
| 8.1.P.A.2 | Navigate the basic functions of a browser. |
| Select and use applications effectively and productively. | | 8.1.P.A.3 | Use digital devices to create stories with pictures, numbers, letters and words. |
| 8.1.P.A.4 | Use basic technology terms in the proper context in conversation with peers and teachers (e.g., camera, tablet, Internet, mouse, keyboard, and printer). |
| 8.1.P.A.5 | Demonstrate the ability to access and use resources on a computing device. |
| **K-2** | Understand and use technology systems. | | 8.1.2.A.1 | Identify the basic features of a digital device and explain its purpose. |
| Select and use applications effectively and productively. | | 8.1.2.A.2 | Create a document using a word processing application. |
| 8.1.2.A.3 | Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each. |
| 8.1.2.A.4 | Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). |
| 8.1.2.A.5 | Enter information into a spreadsheet and sort the information. |
| 8.1.2.A.6 | Identify the structure and components of a database. |
| 8.1.2.A.7 | Enter information into a database or spreadsheet and filter the information. |
| **3-5** | Understand and use technology systems. | | 8.1.5.A.1 | Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems. |
| Select and use applications effectively and productively. | | 8.1.5.A.2 | Format a document using a word processing application to enhance text and include graphics, symbols and/ or pictures. |
| 8.1.5.A.3 | Use a graphic organizer to organize information about problem or issue. |
| 8.1.5.A.4 | Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. |
| 8.1.5.A.5 | Create and use a database to answer basic questions. |
| 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. |
| **6-8** | Understand and use technology systems. | | 8.1.8.A.1 | Demonstrate knowledge of a real world problem using digital tools. |
| Select and use applications effectively and productively. | | 8.1.8.A.2 | Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability. |
| 8.1.8.A.3 | Use and/or develop a simulation that provides an environment to solve a real world problem or theory. |
| 8.1.8.A.4 | Graph and calculate data within a spreadsheet and present a summary of the results |
| 8.1.8.A.5 | Create a database query, sort and create a report and describe the process, and explain the report results. |
| **9-12** | Understand and use technology systems. | | 8.1.12.A.1 | Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources. |
| Select and use applications effectively and productively. | | 8.1.12.A.2 | Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review. |
| 8.1.12.A.3 | Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue. |
| 8.1.12.A.4 | Construct a spreadsheet workbook with multiple worksheets, rename tabs to reflect the data on the worksheet, and use mathematical or logical functions, charts and data from all worksheets to convey the results. |
| 8.1.12.A.5 | Create a report from a relational database consisting of at least two tables and describe the process, and explain the report results. |
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| **Strand** | | **B. Creativity and Innovation:** *Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.* | | |
| Grade  Level  bands | Content Statement  Students will: | | Indicator | Indicator |
| P | Apply existing knowledge to generate new ideas, products, or processes.  Create original works as a means of personal or group expression. | | 8.1.P.B.1 | Create a story about a picture taken by the student on a digital camera or mobile device. |
| K-2 | 8.1.2.B.1 | Illustrate and communicate original ideas and stories using multiple digital tools and [resources](http://www.state.nj.us/education/cccs/def/8/TECH_MediaRich.html). |
| 3-5 | 8.1.5.B.1 | Collaborative to produce a digital story about a significant local event or issue based on first-person interviews. |
| 6-8 | 8.1.8.B.1 | Synthesize and publish information about a local or global issue or event (ex. telecollaborative project, blog, school web). |
| 9-12 | 8.1.12.B.2 | Apply previous content knowledge by creating and piloting a digital learning game or tutorial. |
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| **Strand** | | **C. Communication and Collaboration:** *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.* | | |
| **Grade**  **Level**  **bands** | **Content Statement** | | **Indicator** | **Indicator** |
| **P** | Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media.  Communicate information and ideas to multiple audiences using a variety of media and formats.  Develop cultural understanding and global awareness by engaging with learners of other cultures.  Contribute to project teams to produce original works or solve problems. | | 8.1.P.C.1 | Collaborate with peers by participating in interactive digital games or activities. |
| **K-2** | 8.1.2.C.1 | Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media. |
| **3-5** | 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. |
| **6-8** | 8.1.8.C.1 | Collaborate to develop and publish work that provides perspectives on a global problem for discussions with learners from other countries. |
| **9-12** | 8.1.12.C.1 | Develop an innovative solution to a real world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community. |
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| **Strand** | | **D.** **Digital Citizenship:** *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.* | | |
| **Grade**  **Level**  **bands** | **Content Statement** | | **Indicator** | **Indicator** |
| **K-2** | Advocate and practice safe, legal, and responsible use of information and technology. | | 8.1.2.D.1 | Develop an understanding of ownership of print and nonprint information. |
| **3-5** | Advocate and practice safe, legal, and responsible use of information and technology. | | 8.1.5.D.1 | Understand the need for and use of copyrights. |
| 8.1.5.D.2 | Analyze the resource citations in online materials for proper use. |
| Demonstrate personal responsibility for lifelong learning. | | 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. |
| Exhibit leadership for digital citizenship. | | 8.1.5.D.4 | Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media. |
| **6-8** | Advocate and practice safe, legal, and responsible use of information and technology. | | 8.1.8.D.1 | Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media. |
| Demonstrate personal responsibility for lifelong learning. | | 8.1.8.D.2 | Demonstrate the application of appropriate citations to digital content. |
| 8.1.8.D.3 | Demonstrate an understanding of fair use and Creative Commons to intellectual property. |
| Exhibit leadership for digital citizenship. | | 8.1.8.D.4 | Assess the credibility and accuracy of digital content. |
| 8.1.8.D.5 | Understand appropriate uses for social media and the negative consequences of misuse. |
| **9-12** | Advocate and practice safe, legal, and responsible use of information and technology. | | 8.1.12.D.1 | Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work. |
| Demonstrate personal responsibility for lifelong learning. | | 8.1.12.D.2 | Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information. |
| 8.1.12.D.3 | Compare and contrast policies on filtering and censorship both locally and globally. |
| Exhibit leadership for digital citizenship. | | 8.1.12.D.4 | Research and understand the positive and negative impact of one’s digital footprint. |
| 8.1.12.D.5 | Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs. |
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| **Strand** | | **E: Research and Information Fluency:** *Students apply digital tools to gather, evaluate, and use information.* | | |
| **Grade**  **Level**  **bands** | **Content Statement**  **Students will:** | | **Indicator** | **Indicator** |
| **P** | Plan strategies to guide inquiry. | | 8.1.P.E.1 | Use the Internet to explore and investigate questions with a teacher’s support. |
| **K-2** | Plan strategies to guide inquiry  Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.  Evaluate and select information sources and digital tools based on the appropriateness for specific tasks. | | 8.1.2.E.1 | Use digital tools and online resources to explore a problem or issue. |
| **3-5** | Plan strategies to guide inquiry.  Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.  Evaluate and select information sources and digital tools based on the appropriateness for specific tasks. | | 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. |
| **6-8** | Plan strategies to guide inquiry.  Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.  Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.  Process data and report results. | | 8.1.8.E.1 | Effectively use a variety of search tools and filters in professional public databases to find information to solve a real world problem. |
| **9-12** | Plan strategies to guide inquiry.  Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.  Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.  Process data and report results. | | 8.1.12.E.1 | Produce a position statement about a real world problem by developing a systematic plan of investigation with peers and experts synthesizing information from multiple sources. |
| 8.1.12.E.2 | Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers. |
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| **Strand** | | **F: Critical thinking, problem solving, and decision making:** *Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.* | | |
| **Grade**  **Level**  **bands** | **Content Statement**  **Students will:** | | **Indicator** | **Indicator** |
| **K-2** | Identify and define authentic problems and significant questions for investigation.  Plan and manage activities to develop a solution or complete a project.  Collect and analyze data to identify solutions and/or make informed decisions.  Use multiple processes and diverse perspectives to explore alternative solutions. | | 8.1.2.F.1 | Use geographic mapping tools to plan and solve problems. |
| **3-5** | Identify and define authentic problems and significant questions for investigation.  Plan and manage activities to develop a solution or complete a project.  Collect and analyze data to identify solutions and/or make informed decisions.  Use multiple processes and diverse perspectives to explore alternative solutions | | 8.1.5.F.1 | Apply digital tools to collect, organize, and analyze data that support a scientific finding. |
| **6-8** | Identify and define authentic problems and significant questions for investigation.  Plan and manage activities to develop a solution or complete a project.  Collect and analyze data to identify solutions and/or make informed decisions.  Use multiple processes and diverse perspectives to explore alternative solutions. | | 8.1.8.F.1 | Explore a local issue, by using digital tools to collect and analyze data to identify a solution and make an informed decision. |
| **9-12** | Identify and define authentic problems and significant questions for investigation.  Plan and manage activities to develop a solution or complete a project.  Collect and analyze data to identify solutions and/or make informed decisions.  Use multiple processes and diverse perspectives to explore alternative solutions. | | 8.1.12.F.1 | Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs. |