### 8.1 Educational Technology

| Content Area | Technology  |
|--------------|---|
|              | <b>8.1 Educational Technology:</b> All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge. |
| Strand       | A. Technology Operations and Concepts   |

| By the end of grade | Content Statement  | CPI#      | Cumulative Progress Indicator (CPI)  | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|--|-----------|--|--|
| Р                   | The use of technology and digital tools requires                                     | 8.1.P.A.1 | Use the mouse to negotiate a simple menu on the screen (e.g., to print a picture).   | Preschool<br>All Content Areas                                       |
|                     | knowledge and appropriate use of <u>operations and related</u> <u>applications</u> . | 8.1.P.A.2 | Use electronic devices (e.g., computer) to type name and to create stories with pictures and letters/words.                                    | Preschool<br>All Content Areas                                       |
|                     |  | 8.1.P.A.3 | Identify the "power keys" (e.g., ENTER, spacebar) on a keyboard.   | Preschool<br>All Content Areas                                       |
|                     |  | 8.1.P.A.4 | Recognize that the number keys are in a row on the top of the keyboard.  | Preschool<br>All Content Areas                                       |
|                     |  | 8.1.P.A.5 | Use <u>basic technology terms</u> in conversations (e.g., digital camera, battery, screen, computer, Internet, mouse, keyboards, and printer). | Preschool<br>All Content Areas<br>Vocabulary                         |
|                     |  | 8.1.P.A.6 | Turn smart toys on and off.  | Preschool<br>All Content Areas                                       |
| 2                   | The use of technology and digital tools requires                                     | 8.1.2.A.1 | Identify the basic features of a computer and explain how to use them effectively.   | 1 – 2<br>Computer  |
|                     | knowledge and appropriate use of operations and related                              | 8.1.2.A.2 | Use technology terms in daily practice.  | 1 – 2<br>Computer  |
|                     | applications.  | 8.1.2.A.3 | Discuss the common uses of computer applications and hardware and identify their advantages and disadvantages.                                 | 2<br>Computer  |
|                     |  | 8.1.2.A.4 | Create a document with text using a word processing program.   | 2<br>Language Arts & Computer  |

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|   |  | 8.1.2.A.5 | Demonstrate the ability to navigate in <u>virtual</u> <u>environments</u> that are <u>developmentally</u> <u>appropriate</u> .                               | 2 Language Arts, Mathematics & Computer            |
|---|--|-----------|--|--|
| 4 | The use of technology and digital tools requires knowledge and appropriate                               | 8.1.4.A.1 | Demonstrate effective input of text and data using an input device.  | 3 – 4<br>Language Arts, Science &<br>Computer      |
|   | use of operations and related applications.  | 8.1.4.A.2 | Create a document with text formatting and graphics using a word processing program.   | 4<br>Language Arts & Computer                      |
|   |  | 8.1.4.A.3 | Create and present a multimedia presentation that includes graphics.   | 4<br>Computer                                      |
|   |  | 8.1.4.A.4 | Create a simple spreadsheet, enter data, and interpret the information.  | 3 – 4<br>Computer                                  |
|   |  | 8.1.4.A.5 | Determine the benefits of a wide range of digital tools by using them to solve problems.   | 3 – 4<br>Language Arts, Mathematics,<br>& Computer |
| 8 | The use of technology and digital tools requires knowledge and appropriate use of operations and related | 8.1.8.A.1 | Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program. | 6<br>Language Arts                                 |
|   | applications.  | 8.1.8.A.2 | Plan and create a simple database, define fields, input data, and produce a report using sort and query.   | 6<br>Computer                                      |
|   |  | 8.1.8.A.3 | Create a multimedia presentation including sound and images.   | 6<br>Computer                                      |
|   |  | 8.1.8.A.4 | Generate a spreadsheet to calculate, graph, and present information.   | 6<br>Mathematics                                   |
|   |  | 8.1.8.A.5 | Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.   | 5 – 6<br>Language Arts & Mathematics               |

| Content Area | Technology  |
|--------------|---|
| Standard     | <b>8.1 Educational Technology:</b> All students will use digital tools to access, manage, evaluate, and synthesize information in |
|              | order to solve problems individually and collaboratively and to create and communicate knowledge.                                 |
| Strand       | B. Creativity and Innovation  |

| By the end of grade | Content Statement   | СРІ#      | Cumulative Progress Indicator (CPI)   | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|---|-----------|---|--|
| Р                   | The use of <u>digital tools</u> and <u>media-rich</u> <u>resources</u> enhances creativity and the construction of knowledge. | 8.1.P.B.1 | Use a digital camera to take a picture.   | Preschool All Content Areas  |
| 2                   | The use of <u>digital tools</u> and <u>media-rich</u> resources enhances creativity and the construction of knowledge.        | 8.1.2.B.1 | Illustrate and communicate original ideas and stories using digital tools and media-rich resources.   | 1 – 2<br>Computer  |
| 4                   | The use of <u>digital tools</u> and <u>media-rich</u> <u>resources</u> enhances creativity and the construction of knowledge. | 8.1.4.B.1 | Produce a media-rich digital story about a significant local event or issue based on first-person interviews.   | 3 – 4<br>Computer  |
| 8                   | The use of <u>digital tools</u> and <u>media-rich</u> <u>resources</u> enhances creativity and the construction of knowledge. | 8.1.8.B.1 | Synthesize and publish information about a local or global issue or event on a collaborative, web-based service (also known as a <u>shared hosted</u> <u>service</u> ). | 6<br>Computer  |

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| <b>Content Area</b> | Technology  |
|---------------------|---|
|                     | <b>8.1 Educational Technology:</b> All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge. |
| Strand              | C. Communication and Collaboration  |

| By the end of grade | Content Statement   | CPI#      | Cumulative Progress Indicator (CPI)   | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades  Listed |
|---------------------|---|-----------|---|---|
| Р                   | <u>Digital tools</u> and environments support the learning process and foster collaboration in solving local or global issues and problems. | 8.1.P.C.1 | Operate frequently used, high-quality, interactive games or activities in either screen or toy-based formats.   | Preschool Games & All Content Areas                                   |
|                     |   | 8.1.P.C.2 | Access materials on a disk, cassette tape, or DVD. Insert a disk, cassette tape, CD-Rom, DVD, or other storage device and press "play" and "stop."                            | Preschool<br>Games &<br>All Content Areas                             |
| 2                   | <u>Digital tools</u> and environments support the learning process and foster collaboration in solving local or global issues and problems. | 8.1.2.C.1 | Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using electronic tools.                          | 1 – 2<br>Computer   |
| 4                   | Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.        | 8.1.4.C.1 | Engage in <u>online discussions</u> with learners in the United States or from other countries to understand their perspectives on a global problem or issue.                 | 3 Language Arts 4 Social Studies (Distance Learning)                  |
| 8                   | Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.        | 8.1.8.C.1 | Participate in an online learning community with learners from other countries to understand their perspectives on a global problem or issue, and propose possible solutions. | N/A through 6 <sup>th</sup> Grade                                     |

| <b>Content Area</b> | Technology  |
|---------------------|---|
|                     | <b>8.1 Educational Technology:</b> All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge. |
| Strand              | D. Digital Citizenship  |

| By the end of grade | Content Statement   | CPI#      | Cumulative Progress Indicator (CPI)  | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|---|-----------|--|--|
| 2                   | Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors. | 8.1.2.D.1 | Model legal and ethical behaviors when using both print and non-print information by citing resources.   | 2<br>Computer  |
| 4                   | Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors. | 8.1.4.D.1 | Explain the need for each individual, as a member of the global community, to practice cyber safety, cyber security, and cyber ethics when using existing and emerging technologies. | 4<br>Computer<br>(Bullying)  |
|                     |   | 8.1.4.D.2 | Analyze the need for and use of copyrights.  | 3 – 4<br>Computer  |
|                     |   | 8.1.4.D.3 | Explain the purpose of an acceptable use policy and the consequences of inappropriate use of technology.   | 4<br>Computer  |
| 8                   | Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors. | 8.1.8.D.1 | Model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics.  | 5 – 6<br>Health<br>(John Herman)                                     |
|                     |   | 8.1.8.D.2 | Summarize the application of fair use and Creative Commons guidelines.   | N/A through 6 <sup>th</sup> Grade                                    |
|                     |   | 8.1.8.D.3 | Demonstrate how information on a<br>controversial issue may be biased.   | 5 - 6<br>Language Arts   |

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| Content Area | Technology   |
|--------------|--|
|              | <b>8.1 Educational Technology:</b> All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve |
|              | problems individually and collaboratively and to create and communicate knowledge.   |
| Strand       | E. Research and Information Literacy   |

| By the end of grade | Content Statement  | CPI#      | Cumulative Progress Indicator (CPI)   | Appear in ALL or SELECT CONTENT AREAS of Grades Listed |
|---------------------|--|-----------|---|--|
| Р                   | Effective use of <u>digital tools</u> assists in gathering and managing information. | 8.1.P.E.1 | Use the Internet to explore and investigate questions with a teacher's support.   | Preschool<br>All Content Areas                         |
| 2                   | Effective use of <u>digital tools</u> assists in gathering and managing information. | 8.1.2.E.1 | Use digital tools and online resources to explore a problem or issues affecting children, and discuss possible solutions.   | 2<br>Language Arts & Mathematics                       |
| 4                   | Effective use of <u>digital tools</u> assists in gathering and managing information. | 8.1.4.E.1 | Investigate a problem or issue found in the United States and/or another country from multiple perspectives, evaluate findings, and present possible solutions, using digital tools and online resources for all steps. | 4<br>Social Studies<br>TIME for Kids.com               |
|                     |  | 8.1.4.E.2 | Evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks.   | 3 – 4<br>Reading & Mathematics                         |
| 8                   | Effective use of <u>digital tools</u> assists in gathering and managing information. | 8.1.8.E.1 | Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.  | 6<br>Mathematics                                       |

| <b>Content Area</b> | Technology  |
|---------------------|---|
|                     | <b>8.1 Educational Technology:</b> All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge. |
|                     | problems marviadally and collaboratively and to create and communicate knowledge.   |
| Strand              | F. Critical Thinking, Problem Solving, and Decision-Making  |

| By the end of grade | Content Statement   | CPI#      | Cumulative Progress Indicator (CPI)  | Appear in ALL or SELECT CONTENT AREAS of Grades Listed |
|---------------------|---|-----------|--|--|
| Р                   | Information accessed through the use of digital tools assists in generating solutions and making decisions. | 8.1.P.F.1 | Navigate the basic functions of a browser, including how to open or close windows and use the "back" key.  | Preschool<br>All Content Areas                         |
| 2                   | Information accessed through the use of digital tools assists in generating solutions and making decisions. | 8.1.2.F.1 | Use mapping tools to plan and choose alternate routes to and from various locations.   | 2<br>Computers   |
| 4                   | Information accessed through the use of digital tools assists in generating solutions and making decisions. | 8.1.4.F.1 | Select and apply digital tools to collect, organize, and analyze data that support a scientific finding.   | 3 – 4<br>Language Arts                                 |
| 8                   | Information accessed through the use of digital tools assists in generating solutions and making decisions. | 8.1.8.F.1 | Use an <u>electronic authoring tool</u> in collaboration with learners from other countries to evaluate and summarize the perspectives of other cultures about a current event or contemporary figure. | N/A through 6 <sup>th</sup> Grade                      |

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| <b>Content Area</b> | Technology  |
|---------------------|---|
|                     | 8.2 Technology Education, Engineering, and Design: All students will develop an understanding of the nature and impact of technology, |
|                     | engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.     |
| Strand              | A. Nature of Technology: Creativity and Innovation  |

| By the end of grade | Content Statement  | CPI#      | Cumulative Progress Indicator (CPI)   | Appear in ALL or SELECT  CONTENT AREAS of Grades Listed |
|---------------------|--|-----------|---|---|
| 2                   | Technology products and systems impact every aspect of the world in which we live. | 8.2.2.A.1 | Describe how technology products, systems, and resources are useful at school, home, and work.  | 1 – 2 Language Arts, Mathematics & Computers            |
| 4                   | Technology products and systems impact every aspect of the world in which we live. | 8.2.4.A.1 | Investigate factors that influence the development and function of technology products and systems.   | 3<br>Language Arts<br>4<br>Social Studies               |
|                     |  | 8.2.4.A.2 | Using a digital format, compare and contrast how a technology product has changed over time due to economic, political, and/or cultural influences. | 3<br>Language Arts<br>4<br>Social Studies               |
| 8                   | Technology products and systems impact every aspect of the world in which we live. | 8.2.8.A.1 | Explain the impact of globalization on the development of a technological system over time.   | N/A through 6 <sup>th</sup> Grade                       |

| <b>Content Area</b> | Technology   |   |   |  |  |  |
|---------------------|--|---|---|--|--|--|
| Standard            |  | <b>g, and Design:</b> All students will develop an understanding of the nature and impact of technology, the designed world, as they relate to the individual, global society, and the environment. |   |  |  |  |
| Strand              | B. Design: Critical Thinking, Problem So           | lving, and Deci   | sion-Making   |  |  |  |
| By the end of grade | Content Statement                                  | CPI#  | Cumulative Progress Indicator (CPI)   | Appear in <u>ALL or SELECT</u><br>CONTENT AREAS of Grades Listed |  |  |
| 2                   | sign process is a systematic approach to problems. | 8.2.2.B.1   | Brainstorm and devise a plan to repair a broken toy or tool using the design process.   | 2<br>Computer  |  |  |
|                     |  | 8.2.2.B.2   | Investigate the influence of a specific technology on the individual, family, community, and environment.   | 2<br>Computer  |  |  |
| 4                   | sign process is a systematic approach to problems. | 8.2.4.B.1   | Develop a product using an online simulation that explores the design process.  | 4 Language Arts, Science & Computers                             |  |  |
|                     |  | 8.2.4.B.2   | Design an alternative use for an existing product.  | 3 Science & Mathematics  |  |  |
|                     |  | 8.2.4.B.3   | Explain the positive and negative effect of products and systems on humans, other species, and the environment.   | 3 – 4<br>Science & Social Studies                                |  |  |
|                     |  | 8.2.4.B.4   | Compare and contrast how technology transfer happens within a technology, among technologies, and among other fields of study.  | 3 – 4<br>Computers<br>(Discussion)                               |  |  |
| 8                   | sign process is a systematic approach to problems. | 8.2.8.B.1   | Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.  | N/A through 6 <sup>th</sup> Grade                                |  |  |
|                     |  | 8.2.8.B.2   | Identify the design constraints and trade-offs involved in designing a prototype (e.g., how the prototype might fail and how it might be improved) by completing a design problem and reporting results in a multimedia presentation. | N/A through 6 <sup>th</sup> Grade                                |  |  |
|                     |  | 8.2.8.B.3   | Solve a science-based design challenge and build a prototype using science and math principles throughout the design process.   | N/A through 6 <sup>th</sup> Grade                                |  |  |

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| <b>Content Area</b> | Technology  |
|---------------------|---|
|                     | 8.2 Technology Education, Engineering, and Design: All students will develop an understanding of the nature and impact of technology, |
|                     | engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.     |
| Strand              | C. Technological Citizenship, Ethics, and Society   |

| By the end of grade | Content Statement   | СРІ#      | Cumulative Progress Indicator (CPI)   | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|---|-----------|---|--|
| 2                   | Knowledge and understanding of human, cultural, and societal values are fundamental when designing technology systems and products in the global society. | 8.2.2.C.1 | Demonstrate how reusing a product affects the local and global environment.   | 2<br>Science   |
| 4                   | Knowledge and understanding of human, cultural, and societal values are fundamental   | 8.2.4.C.1 | Explain the impact of disposing of materials in a responsible way.  | 3 – 4<br>Science   |
|                     | when designing technology systems and products in the global society.   | 8.2.4.C.2 | Explain the purpose of trademarks and the impact of trademark infringement on businesses.   | 4<br>Language Arts & Social Studies                                  |
|                     |   | 8.2.4.C.3 | Examine ethical considerations in the development and production of a product from its inception through production, marketing, use, maintenance, and eventual disposal by consumers. | 3 – 4<br>Social Studies<br>(Manufacturing)                           |
| 8                   | Knowledge and understanding of human, cultural, and societal values are fundamental   | 8.2.8.C.1 | Explain the need for patents and the process of registering one.  | N/A through 6 <sup>th</sup> Grade                                    |
|                     | when designing technology systems and products in the global society.   | 8.2.8.C.2 | Compare and contrast current and past incidences of ethical and unethical use of labor in the United States or another country and present results in a media-rich presentation.      | 6<br>Computer  |

| <b>Content Area</b> | Technology   |
|---------------------|--|
|                     | <b>8.2 Technology Education, Engineering, and Design:</b> All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment. |
| Strand              | D. Research and Information Fluency  |

| By the end of grade | Content Statement  | CPI#      | Cumulative Progress Indicator (CPI)   | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|--|-----------|---|--|
| 2                   | Information-literacy skills, research, data analysis, and prediction provide the basis for the effective design of technology systems. | 8.2.2.D.1 | Collect and post the results of a digital classroom survey about a problem or issue and use data to suggest solutions.  | 1 – 2<br>Computer  |
| 4                   | Information-literacy skills, research, data analysis, and prediction provide the basis for the effective design of technology systems. | 8.2.4.D.1 | Analyze responses collected from owners/users of a particular product and suggest modifications in the design of the product based on their responses.                      | 3 – 4<br>Social Studies  |
| 8                   | Information-literacy skills, research, data analysis, and prediction provide the basis for the effective design of technology systems. | 8.2.8.D.1 | Evaluate the role of ethics and bias on trend analysis and prediction in the development of a product that impacts communities in the United States and/or other countries. | N/A through 6 <sup>th</sup> Grade                                    |

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| <b>Content Area</b> | Technology  |
|---------------------|---|
| Standard            | 8.2 Technology Education, Engineering, and Design: All students will develop an understanding of the nature and impact of technology, |
|                     | engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.     |
| Strand              | E. Communication and Collaboration  |

| By the end of grade | Content Statement   | CPI#      | Cumulative Progress Indicator (CPI)   | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|---|-----------|---|--|
| 2                   | <u>Digital tools</u> facilitate local and global communication and collaboration in designing products and systems. | 8.2.2.E.1 | Communicate with students in the United States or other countries using digital tools to gather information about a specific topic and share results.   | 2<br>Computers   |
| 4                   | Digital tools facilitate local and global communication and collaboration in designing products and systems.        | 8.2.4.E.1 | Work in collaboration with peers to produce and publish a report that explains how technology is or was successfully or unsuccessfully used to address a local or global problem.                                       | 4 All Content Areas Science & Computers                              |
| 8                   | Digital tools facilitate local and global communication and collaboration in designing products and systems.        | 8.2.8.E.1 | Work in collaboration with peers and experts in the field to develop a product using the design process, data analysis, and trends, and maintain a digital log with annotated sketches to record the development cycle. | N/A through 6 <sup>th</sup> Grade                                    |

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| <b>Content Area</b> | Technology  |
|---------------------|---|
|                     | 8.2 Technology Education, Engineering, and Design: All students will develop an understanding of the nature and impact of technology, |
|                     | engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.     |
| Strand              | F. Resources for a Technological World  |

| By the end of grade | Content Statement  | CPI#      | Cumulative Progress Indicator (CPI)   | Appear in ALL or SELECT  CONTENT AREAS of Grades Listed |
|---------------------|--|-----------|---|---|
| 2                   | Technological products and systems are created through the application and appropriate use of technological resources. | 8.2.2.F.1 | Identify the resources needed to create technological products and systems.   | 1 – 2<br>Computers                                      |
| 4                   | Technological products and systems are created through the application and appropriate use of technological resources. | 8.2.4.F.1 | Describe how resources are used in a technological product or system.   | 3 – 4<br>Computers<br>(Brain Pop)                       |
|                     |  | 8.2.4.F.2 | Explain how resources are processed in order to produce technological products and systems.   | 3 – 4<br>Computers                                      |
| 8                   | Technological products and systems are created through the application and appropriate use of technological resources. | 8.2.8.F.1 | Explain the impact of resource selection and processing in the development of a common technological product or system.   | N/A through 6 <sup>th</sup> Grade                       |
|                     |  | 8.2.8.F.2 | Explain how the resources and processes used in the production of a current technological product can be modified to have a more positive impact on the environment (e.g., by using recycled metals, alternate energy sources) and the economy. | N/A through 6 <sup>th</sup> Grade                       |

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| <b>Content Area</b> | Technology   |  |
|---------------------|--|--|
| Standard            | <b>8.2 Technology Education, Engineering, and Design:</b> All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment. |  |
| Strand              | G. The Designed World  |  |

| By the end of grade | Content Statement   | CPI#      | Cumulative Progress Indicator (CPI)  | Appear in <u>ALL or SELECT</u> <u>CONTENT AREAS</u> of Grades Listed |
|---------------------|---|-----------|--|--|
| 2                   | The designed world is the product of a design process that provides the means to convert resources into products and systems. | 8.2.2.G.1 | Describe how the parts of a common toy or tool interact and work as part of a system.  | 2<br>Computer  |
|                     |   | 8.2.2.G.2 | Explain the importance of safety in the use and selection of appropriate tools and resources for a specific purpose.                               | K − 2<br>Language Arts & Computer                                    |
| 4                   | The designed world is the product of a design process that provides the means to convert resources into products and systems. | 8.2.4.G.1 | Examine a malfunctioning tool and use a step-by-step process to troubleshoot and present options to repair the product.                            | 3 – 4<br>Computers (ZAP)   |
|                     |   | 8.2.4.G.2 | Explain the functions of a system and subsystems.  | 3 – 4<br>Science   |
|                     |   | 8.2.4.G.3 | Evaluate the function, value, and aesthetics of a technological product, system, or environment from the perspective of the user and the producer. | 4<br>Social Studies  |
| 8                   | The designed world is the product of a design process that provides the means to convert resources into products and systems. | 8.2.8.G.1 | Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved.                          | 6<br>Science   |
|                     |   | 8.2.8.G.2 | Explain the interdependence of a subsystem that operates as part of a system.  | N/A through 6 <sup>th</sup> Grade                                    |

### **BASIC TECHNOLOGY TERMS**

Basic technology terms for preschool: Examples digital camera, battery, screen, computer, Internet, mouse, keyboard, and printer.

### **CONTROVERSIAL ISSUE**

**Controversial issue:** For example, global warming, scarcity of water, alternative energy sources, election campaigns.

#### **CURRENT AND EMERGING TECHNOLOGY RESOURCES**

Current and emerging technology resources: For example, cell phones, GPS, online communities using wikis, blogs, vlogs, and/or Nings.

#### **DATA COLLECTION TECHNOLOGY**

**Data-collection technology:** For example, probes, handheld devices, and geographic mapping systems.

#### **DEVELOPMENTALLY APPROPRIATE**

**Developmentally appropriate:** Students' developmental levels prescribe the learning environment and activities that are used.

#### **DIGITAL LEARNING GAME**

**Digital learning game:** For example, Alice, Lively.

### **DIGITAL TOOLS1**

**Digital tools for grade 2:** For example, computers, digital cameras, software.

#### **DIGITAL TOOLS2**

**Digital tools for grades 4, 8, and 12:** For example, computers, digital cameras, probing devices, software, cell phones, GPS, online communities, VOIP, and virtual conferences.

#### **ELECTRONIC AUTHORING TOOL**

Electronic authoring tools: Software that facilitates online book development (e.g., multimedia electronic book).

### **MAPPING TOOLS**

Mapping tools: For example, Google earth, Yahoo maps, and Google maps.

#### **MEDIA-RICH RESOURCES**

Media-rich: Multiple forms of digital applications in one product (e.g., graphic design, word processing, and spreadsheet).

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### **MULTIMEDIA PRESENTATION**

Multimedia presentation: For example, movie, podcast, vlog.

### **ONLINE DISCUSSIONS**

Online discussion: UNICEF, Oracle, i-Earn, blogs, wikis.

#### **ONLINE LEARNING COMMUNITY**

Online learning community: For example, i-Earn, Ning, blogs, wikis, Second Life.

### **OPERATIONS AND RELATED APPLICATIONS**

Operations and related applications: For example, saving a word processing file to a network drive, printing a spreadsheet.

#### **REVERSE-ENGINEER**

**Reverse engineer:** To isolate the components of a completed system.

### **SHARED HOSTED SERVICE**

**Shared hosted services:** For example, podcasts, videos, or vlogs.

### **TECHNOLOGIES**

**Technologies:** Medical, agricultural, and related biotechnologies, energy and power technologies, information and communications technologies, transportation technologies, manufacturing technologies, and construction technologies.

### **VIRTUAL ENVIRONMENTS**

Virtual environments: For example, games, simulations, websites, blogs.

### **WEB-BASED PUBLICATION**

Web-based publication: For example, web pages, wikis, blogs, ezines.

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