

**Computers**  
**Grade 1 - Marking Period 1**  
**Curriculum Map**

**Big Ideas: Navigating The Internet and Virtual Worlds and Keyboarding**

Enduring Understandings	Essential Questions	Skills/21 <sup>st</sup> Century Skills	Standards	Benchmark Assessments
<p>Student navigates the Internet and virtual worlds for a variety of purposes.</p> <p>Student uses keyboarding for a variety of purposes.</p> <p><b>Vocabulary:</b></p> <p>Internet, tabs, address, website, online, links, full screen, home page, virtual worlds, keyboard</p>	<p>What is the Internet and how can I use it?</p> <p>How can I navigate virtual worlds?</p> <p>Why is it necessary to use a keyboard with a computer?</p> <p><b>Suggested Modifications:</b></p> <p>Modification of curricular content and/or student products</p> <p>Modify Difficulty Level</p> <p>Modify Assignments</p>	<ul style="list-style-type: none"> <li>● be able to describe the Internet and ways to use it</li> <li>● be able to access the Internet using a web browser</li> <li>● be able to access and navigate websites from the school home page and class eboard</li> <li>● be able to add and close Internet tabs</li> <li>● be able to turn on and off the full screen function</li> <li>● be able to navigate virtual world applications both online and offline</li> <li>● understands keyboards are used to input data into a computer</li> <li>● be able to locate and type all letters and numbers on the keyboard</li> <li>● be able to use the DELETE/BACKSPACE key to erase</li> <li>● be able to use the SHIFT key to type capital letters</li> </ul> <p><i>-Apply knowledge, attitudes, behaviors, and skills across disciplines in appropriate and effective ways.</i></p> <p><i>-Demonstrate imagination and curiosity.</i></p> <p><i>-Demonstrate the ability to use language to read, write, listen, and speak.</i></p>	<p><b>8.1.2.A.4</b> -Demonstrate developmentally appropriate navigation skills in virtual environments.</p>	<p>Observation</p> <p>Virtual World Activities</p> <p>Keyboard Activities</p> <p><b>Suggested Resources:</b></p> <p>Chrome</p> <p>Firefox</p> <p>class eboard</p> <p>pbskids.org</p> <p>Thinkin Science</p> <p>Build and Play</p> <p>KidECook</p> <p>The Little Market</p> <p>Keyboard Zoo</p> <p>Keyboard Climber 1</p> <p>Keyboard Climber 2</p>

**Computers**  
**Grade 1 - Marking Period 2**  
**Curriculum Map**

<b>Big Ideas: Word Processing and Digital Art</b>		<b>Skills/21<sup>st</sup> Century Skills</b>	<b>Standards</b>	<b>Benchmark Assessments</b>
<b>Enduring Understandings</b>	<b>Essential Questions</b>			
Student uses word processors for a variety of purposes.	How can I use word processors to type and create?	<ul style="list-style-type: none"> <li>be able to describe a word processor and uses for it</li> <li>understand the cursor is the insertion point</li> <li>be able to enter text into a document</li> <li>be able to use the DELETE/BACKSPACE key to erase</li> <li>be able to use the SHIFT key for typing capital letters</li> <li>be able to type punctuation marks ( . , ? ! ), using SHIFT key when necessary</li> <li>be able to use the SPACEBAR key to correctly leave one space between words</li> <li>be able to create an original drawing using a digital art application</li> <li>be able to use a webcam to take a self photo and insert into an art application</li> <li>be able to modify a photo using digital tools</li> <li>be able to insert an illustration, drawing or photo into a word processing document</li> <li>be able to use a word processor and digital art application to create a document with sentences and illustrations, including self photos</li> </ul>	<p><b>8.1.2.A.2-</b>Create a document using a word processing application.</p> <p><b>8.1.2.B.1 -</b>Illustrate and communicate original ideas and stories using multiple digital tools and resources.</p>	<p>Observation</p> <p>Project - Storybook</p>
Student uses digital art applications for a variety of purposes.	How can I use digital technology to create art?			
<b>Vocabulary:</b> word processor, webcam	<b>Suggested Modifications:</b> Modification of curricular content and/or student products Modify Difficulty Level Modify Assignments			<b>Suggested Resources:</b> Clicker 6 Clicker Paint Kid Pix

*-Demonstrate the ability to use language to read, write, listen, and speak.*  
*-Demonstrate imagination and curiosity.*  
*-Apply knowledge, attitudes, behaviors, and skills across disciplines in appropriate and effective ways.*

**Computers**  
**Grade 1 - Marking Period 3**  
**Curriculum Map**

**Big Ideas: Design Process, Resources, Products, and Systems**

Enduring Understandings	Essential Questions	Skills/21 <sup>st</sup> Century Skills	Standards	Benchmark Assessments
<p>Student understands technology systems impact every aspect of the world.</p> <p>Student understands the designed world is the product of a design process that converts resources into products and systems.</p> <p><b>Vocabulary:</b></p> <p>technology, resources, products, systems, design process</p>	<p>How are products and systems created using resources?</p> <p>Why is it important to continue to create and improve products and systems?</p> <p><b>Suggested Modifications:</b></p> <p>Flexible Grouping</p> <p>Modification of curricular content and/or student products</p> <p>Modify Difficulty Level</p>	<ul style="list-style-type: none"> <li>• be able to describe products produced as a result of nature and of technology and how they are useful in meeting human needs</li> <li>• be able to describe the resources needed to create products and how reusing products helps the environment</li> <li>• be able to describe why it is important to make new products</li> <li>• be able to identify how using a tool aids in reducing work</li> <li>• be able to describe how the parts of a common toy or tool interact and work as part of a system by collaboratively taking it apart, sketching how parts fit, and putting it back together and then identifying the strengths and weaknesses of the toy or tool</li> <li>• be able to collaboratively investigate a product that has stopped working and apply a design process to solve the problem and improve the product by brainstorming ideas, creating a drawing, planning the tools and materials needed, and communicating its function</li> </ul> <p><i>-Solve different kinds of non-familiar problems in both conventional and innovative ways.</i></p> <p><i>-Create new and worthwhile ideas.</i></p>	<p>8.2.2.A.1- Define products produced as a result of technology or of nature.</p> <p>8.2.2.A.2- Describe how designed products and systems are useful at school, home, and work.</p> <p>8.2.2.A.3- Identify a system and the components that work together to accomplish its purpose.</p> <p>8.2.2.A.4- Choose a product to make and plan the tools and materials needed.</p> <p>8.2.2.B.1- Identify how technology impacts or improves life.</p> <p>8.2.2.B.2- Demonstrate how reusing a product affects the local and global environment.</p> <p>8.2.2.B.3- Identify products or systems that are designed to meet human needs.</p> <p>8.2.2.B.4- Identify how the ways people live and work has changed because of technology.</p> <p>8.2.2.C.1- Brainstorm ideas on how to solve a problem or build a product.</p> <p>8.2.2.C.2- Create a drawing of a product or device that communicates its function to peers and discuss.</p> <p>8.2.2.C.3- Explain why we need to make new products.</p> <p>8.2.2.C.4- Identify designed products and brainstorm how to improve one used in the classroom.</p> <p>8.2.2.C.5- Describe how the parts of a common toy or tool interact and work as part of a system.</p> <p>8.2.2.C.6- Investigate a product that has stopped working and brainstorm ideas to correct the problem.</p> <p>8.2.2.D.1- Collaborate and apply a design process to solve a simple problem from everyday experiences.</p> <p>8.2.2.D.2- Discover how a product works by taking it apart, sketching how parts fit, and putting it back together.</p>	<p>Observation</p> <p>Activity Sheets</p> <p>Project-Disassemble/ Reassemble Toy or Tool</p> <p>Project-Broken Product</p> <p><b>Suggested Resources:</b></p> <p>Thinkin Science</p> <p>Build and Play</p> <p>Design Squad</p> <p>NASA</p>

**Computers**  
**Grade 1 - Marking Period 3**  
**Curriculum Map**

	<p>Modify Assignments</p>	<ul style="list-style-type: none"> <li>-Demonstrate imagination and curiosity.</li> <li>-Develop, implement, and communicate new ideas to others effectively.</li> <li>-View failure as an opportunity to learn. Be open and responsive to new and diverse perspectives. Demonstrate ability to work effectively and respectfully with teams.</li> <li>-Assume shared responsibility for collaborative work and value contributions of all teammates.</li> </ul>	<p>8.2.2.D.3- Identify the strengths and weaknesses in a product or system.</p> <p>8.2.2.D.4- Identify the resources needed to create technological products or systems.</p> <p>8.2.2.D.5- Identify how using a tool aids in reducing work.</p>
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**Computers**  
**Grade 1 - Marking Period 4**  
**Curriculum Map**

**Big Ideas: EIE: Catching the Wind**

Enduring Understandings	Essential Questions	Skills/21 <sup>st</sup> Century Skills	Standards	Benchmark Assessments
<p>Student understands engineers follow the engineering design process to solve problems.</p> <p><b>Vocabulary:</b></p> <p>technology, engineers, mechanical engineer, engineering design process, machines, wind, windmills, wind turbines, blades</p>	<p>How do mechanical engineers design and improve machines?</p> <p><b>Suggested Modifications:</b></p> <p>Flexible Grouping</p> <p>Modification of curricular content and/or student products</p> <p>Modify Difficulty Level</p> <p>Modify Assignments</p>	<ul style="list-style-type: none"> <li>• be able to recognize that engineers follow the steps of the Engineering Design Process: (ASK, IMAGINE, PLAN, CREATE, and IMPROVE) to solve problems</li> <li>• understand that some materials and shapes catch the wind better than others</li> <li>• be able to describe that wind is energy</li> <li>• be able to describe how windmill and wind turbines use the energy of the wind to do work</li> <li>• be able to describe the similarities and differences between windmills and wind turbines</li> <li>• collaboratively design and write a plan for a blade design for a windmill</li> <li>• collaboratively create and test their blade design</li> <li>• collaboratively improve their blade design based on testing results</li> </ul> <p><i>-Solve different kinds of non-familiar problems in both conventional and innovative ways.</i></p> <p><i>-Create new and worthwhile ideas.</i></p> <p><i>-Elaborate, refine, analyze, and evaluate ideas in order to improve and maximize creative efforts.</i></p> <p><i>-Demonstrate imagination and curiosity.</i></p> <p><i>-Develop, implement, and communicate new ideas to others effectively.</i></p> <p><i>-View failure as an opportunity to learn.</i></p> <p><i>-Be open and responsive to new and diverse perspectives.</i></p> <p><i>-Demonstrate ability to work effectively and respectfully with teams.</i></p> <p><i>-Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal.</i></p> <p><i>-Assume shared responsibility for collaborative work and value contributions of all team members.</i></p> <p><i>-Think and reflect critically on learning experiences.</i></p> <p><i>-Apply knowledge, attitudes, behaviors, and skills across disciplines in appropriate and effective ways.</i></p>	<p>8.2.2.A.1- Define products produced as a result of technology or of nature.</p> <p>8.2.2.A.2- Describe how designed products and systems are useful at school, home, and work.</p> <p>8.2.2.A.3- Identify a system and the components that work together to accomplish its purpose.</p> <p>8.2.2.A.4- Choose a product to make and plan the tools and materials needed.</p> <p>8.2.2.B.1- Identify how technology impacts or improves life.</p> <p>8.2.2.B.3- Identify products or systems that are designed to meet human needs.</p> <p>8.2.2.B.4- Identify how the ways people live and work has changed because of technology.</p> <p>8.2.2.C.-1 Brainstorm ideas on how to solve a problem or build a product.</p> <p>8.2.2.C.2- Create a drawing of a product or device that communicates its function to peers and discuss.</p> <p>8.2.2.C.3- Explain why we need to make new products.</p> <p>8.2.2.D.5- Identify how using a tool aids in reducing work.</p> <p><b>5.2 Physical Science (Energy) - 5.4 Earth Systems Science (Climate and Weather)</b></p>	<p>Observation</p> <p>Activity Sheets</p> <p>Project-Windmill Blades</p> <p>Formal Written Assessment</p> <p><b>Suggested Resources:</b></p> <p>Engineering is Elementary</p> <p>NASA EDP Video</p> <p>Windmill Video</p> <p>Wind Turbine Video</p>