

HADDONFIELD PUBLIC SCHOOLS
Curriculum Map for 7th Grade Technology

<i>Semester Course</i>
<p>Targeted Standard(s): NJCCCS</p> <p>TEC.5-8.8.1.8 A.1 - Use appropriate technology vocabulary.</p> <p>TEC.5-8.8.1.8 A.2 - Use common features of an operating system (e.g., creating and organizing files and folders).</p> <p>TEC.5-8.8.1.8 A.3 - Demonstrate effective input of text and data, using touch keyboarding with proper technique.</p> <p>TEC.5-8.8.1.8 A.4 - Input and access data and text efficiently and accurately through proficient use of other input devices, such as the mouse.</p> <p>TEC.5-8.8.1.8 A.5 - Create documents with advanced text-formatting and graphics using word processing.</p> <p>TEC.5-8.8.1.8 A.6 - Create a file containing customized information by merging documents.</p> <p>TEC.5-8.8.1.8 A.7 - Construct a simple spreadsheet, enter data, and interpret the information.</p> <p>TEC.5-8.8.1.8 A.8 - Design and produce a basic multimedia project.</p> <p>TEC.5-8.8.2.8 B.3 - Identify a technological problem and use the design process to create an appropriate solution.</p> <p>TEC.5-8.8.2.8 B.1 - Demonstrate and explain how the design process is not linear.</p> <p>TEC.5-8.8.2.8 A.1 - Describe the nature of technology and the consequences of technological activity.</p> <p>TEC.5-8.8.2.C.3 Explain the functions and interdependence of subsystems such as waste disposal, water purification, electrical, structural, safety, climatic control, and communication.</p> <p>TEC.5-8.8.1.8 B.4 - Describe and practice safe Internet usage.</p> <p>TEC.5-8.8.1.8 B.5 - Describe and practice "etiquette" when using the Internet and electronic mail.</p> <p>TEC.5-8.8.1.8 B.6 - Choose appropriate tools and information resources to support research and solve real world problems, including but not limited to:</p> <p>TEC.5-8.8.1.8 B.6.a - On-line resources and databases</p> <p>TEC.5-8.8.1.8 B.6.b - Search engines and subject directories</p> <p>TEC.5-8.8.1.8 B.7 - Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources.</p> <p>TEC.5-8.8.1.8 A.9 - Plan and create a simple database, define fields, input data, and produce a report using sort and query.</p> <p>TEC.5-8.8.1.8 B.10 - Determine when technology tools are appropriate to solve a problem and make a decision.</p> <p>TEC.5-8.8.2 - 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, society, and the environment.</p> <p>TEC.5-8.8.2.8 A.2 - Describe how components of a technological product, system, or environment interact.</p> <p>TEC.5-8.8.2.8 A.3 - Describe how one technological innovation can be applied to solve another human problem that enhances human life or extends human capability.</p> <p>TEC.5-8.8.1.8 B.8 - Use computer applications to modify information independently and/or collaboratively to solve problems.</p> <p>TEC.5-8.8.2.8 A.1 - Describe the nature of technology and the consequences of technological activity.</p> <p>TEC.5-8.8.2.8 B.1 - Demonstrate and explain how the design process is not linear.</p> <p>TEC.5-8.8.2.8 B.2 - Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.</p> <p>TEC.5-8.8.2.8 C.2 - Explain reasons why human-designed systems, products, and environments need to be monitored, maintained, and improved to ensure safety, quality, cost efficiency, and sustainability.</p> <p>Career Education and Life Skills/Critical Thinking 9.2A, 9.2B, 9.2C, 9.2D</p>
<p>Enduring Understandings (<i>The big ideas</i>):</p> <p>Technology is a learning and living tool</p> <p>Technology intersects with all areas of life</p> <p>Technology guidelines are a matter of physical, social, and emotional safety.</p> <p>The ability to use computer applications to solve real world problems using the design loop.</p>
<p>Essential Questions: What is technology literacy? What is flight and aircraft? What is internet safety? What is ground transportation? What is architectural?</p>

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Core Content/Objectives		Instructional Actions	
Concepts <i>What students will know</i>	Skills <i>What students will be able to do</i>	Activities/Strategies <i>Learning Activities/ Differentiation Interdisciplinary Connections</i>	Assessment <i>How learning will be assessed</i>
Teamwork Design Loop History of aviation Airplane types and uses Cyberbullying Copyright Illegal Activity Stranger Danger Posting information online History of Transportation History of Auto Racing Interstate Highway System Automobile Design Transportation Politics Engines Public Transportation Architectural Interior design Building construction	Review design loop Work together as a member of a team. Define flight and aircraft List the types of aircraft by use. List the types of aircraft by propulsion system. List the types of aircraft by lift. Define lift, thrust, drag, angle of attack, and stall. List the parts of a plane. Design a plane. Create a model plane. Define what cyberbullying is. Define stranger danger Explain what information is and isn't appropriate to put online. List the types of dangers the Internet poses. List ground transportation systems and their strengths and weaknesses. Explain the relationship of trade and ground transportation Design a ground vehicle List the parts of a car Describe how an internal combustion engine works. Vehicles Explain the environmental impact of ground transportation List the purposes for a particular architectural feature of Philadelphia Explain how a Philadelphia landmark was constructed Create a model of a Philadelphia landmark	<ul style="list-style-type: none"> Post a new blog entry about a career in technology and comment on two blog posts reflecting on those entries. Watches a video of a team of people building something describe how they work. Participate in team building activities. Create a PowerPoint presentation about a particular aircraft. Design a plane using Google Sketchup Create a model plane hands-on. Discuss videos that demonstrate aspects of internet safety. Read and discuss case studies of internet safety Develop an internet safety checklist for your family. Create a brochure to raise awareness of internet safety. Create a model vehicle. Create a PowerPoint presentation about a particular car or truck. Develop a system to assess transportation needs. Work as a member of a team to develop and market a new ground vehicle. Develop a database of vehicles. Create a PowerPoint Presentation of a Philadelphia landmark to explain its' history and significant. Create a 3D model of a Philadelphia landmark. Create a hands-on model of a Philadelphia landmark. 	Each project will be assessed using a Benchmark rubric that is tied to standards.
Resources/Technology:			

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Internet web sites
Form Board
Glue Guns
Wood
Various Software