

Mount Laurel Township Schools
STEAM Curriculum Guide
Grade Seven

Unit #1	
Stage 1 – Desired Results	
NJCCCS: 2.2	Unit/Big Idea: STEAM
<p>Enduring Understandings: Students will understand that... Digital tools play an essential role in helping to solve local and global problems.</p> <p>The way people interact with their environment creates changes that can have lasting effects.</p>	<p>Essential Questions: How can digital tools be used to bring the people together to solve local/global issues?</p> <p>How do people affect the environment?</p>
<p>Students will know that... The use of digital tools and media-rich resources enhances creativity and the construction of knowledge.</p> <p>Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.</p> <p>Digital tools facilitate local and global communication and collaboration in designing products and systems.</p> <p>In order to determine which arguments and explanations are most persuasive, communities of learners work collaboratively to pose, refine, and evaluate questions, investigations, models, and theories (e.g., argumentation, representation, visualization, etc.).</p>	<p>Students will be able to...</p> <p>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 shared hosted service).</p> <p>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.</p> <p>8.2.8.E.1 – Work in collaboration with peers and experts in the field to develop a product using design process, data analysis, and trends, and maintain a digital log with annotated sketches to record the development cycle.</p> <p>5.1.8.D.2 – Engage in productive scientific discussion practices during conversations with peers, both face-to-face and virtually, in context of scientific investigations and model-building.</p>
Stage 2 – Assessment Evidence	
<p>Required Performance Assessment: You are an environmental engineer. Your role is to research information concerning a local/global problem. You will create a documentary video that proposes solutions to a local/global problem. You will share those videos with students in other local/global communities in order to come up with an effective solution to the problem.</p>	<p>Other Evidence: Video Production Skills Evidence Collaborative Digital Tool Skills Evidence Problem Solving Evidence Environmental Research Evidence</p>

Stage 3 - Learning Plan

Suggested Learning Activities:

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| <ul style="list-style-type: none">• Steam Introduction (group presentation)• TV Production Module<ul style="list-style-type: none">• Tools of the Trade<ul style="list-style-type: none">• Video (small group instruction)• Sound (small group instruction)• Lighting (small group instruction)• Talent – On Screen/Off Screen (small group instruction)• Show Preparation (large & small group instruction)• Humans & the Environment Module<ul style="list-style-type: none">• Environmental Science Background (group presentation)• Addressing the Issues (small group problem-solving activities) | <ul style="list-style-type: none">• Creativity and the Brain<ul style="list-style-type: none">• Creativity and the Brain Background (group presentation)• Creativity Exercises (small group problem-solving activities)• Creating/Sharing Solutions<ul style="list-style-type: none">• Researching the Issues (small group work)• Preparing Findings (small group work)• Presenting Solutions (small group presentation) |
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