



PLANNING TOOL

Lesson / Unit Description:	Time Frame:
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What is the real-world connection? What problem are students solving?

Science Standards Addressed:	Technology and Computer Science Standards Addressed:	Math Standards Addressed:
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If standards addressed are not on grade level, educators assume responsibility to address grade-level standards.

STUDENT PRACTICES

<p>Science and Engineering Practices</p> <ul style="list-style-type: none"> <input type="checkbox"/> Asking Questions and Defining Problems <input type="checkbox"/> Developing and Using Models <input type="checkbox"/> Planning and Carrying Out Investigations <input type="checkbox"/> Analyzing and Interpreting Data <input type="checkbox"/> Using Mathematics and Computational Thinking <input type="checkbox"/> Engaging in Argument from Evidence <input type="checkbox"/> Obtaining, Evaluating, and Communicating Information <p><i>Check at least 1.</i></p>	<p>Technology Practices</p> <ul style="list-style-type: none"> <input type="checkbox"/> Access to up-to-date and primary source material <input type="checkbox"/> Methods of collecting/recording data <input type="checkbox"/> Ways to collaborate with students, teachers, and experts around the world <input type="checkbox"/> Opportunities for expressing understanding via multimedia <input type="checkbox"/> Learning that is relevant and assessment that is authentic <input type="checkbox"/> Training for publishing and presenting their new knowledge <p><i>Check at least 1.</i></p>	<p>Mathematical Habits of Mind</p> <ul style="list-style-type: none"> <input type="checkbox"/> Make sense of problems and persevere to solve them. <input type="checkbox"/> Reason abstractly and quantitatively. <input type="checkbox"/> Construct viable arguments and critique the reasoning of others. <input type="checkbox"/> Model with Mathematics. <input type="checkbox"/> Use appropriate tools strategically. <input type="checkbox"/> Attend to precision. <input type="checkbox"/> Look for and make use of structure. <input type="checkbox"/> Look for and express regularity in repeated reasoning. <p><i>Check at least 1.</i></p>
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Arts Domains

<input type="checkbox"/> Create	<input type="checkbox"/> Connect	<input type="checkbox"/> Explore	<input type="checkbox"/> Perform	<input type="checkbox"/> Relate	<input type="checkbox"/> Respond
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<p>Engineering Design Process</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify the Need & Constraints <input type="checkbox"/> Research the Problem <input type="checkbox"/> Develop Possible Solutions 	<ul style="list-style-type: none"> <input type="checkbox"/> Select a Promising Solution <input type="checkbox"/> Build a Prototype <input type="checkbox"/> Test and Evaluate Prototype 	<ul style="list-style-type: none"> <input type="checkbox"/> Redesign as Needed <p><i>Check at least 3.</i></p>
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Literacy Connections:

Other curricular and community-based (real-world) connections:

POST-LESSON REFLECTION

Practices that were employed or observed, but weren't planned:

STUDENT PRACTICES

Science and Engineering Practices

- Asking Questions and Defining Problems
- Developing and Using Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

Check at least 1.

Technology Practices

- Access to up-to-date and primary source material
- Methods of collecting/recording data
- Ways to collaborate with students, teachers, and experts around the world
- Opportunities for expressing understanding via multimedia
- Learning that is relevant and assessment that is authentic
- Training for publishing and presenting their new knowledge

Check at least 1.

Mathematical Habits of Mind

- Make sense of problems and persevere to solve them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with Mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Check at least 1.

Engineering Design Process

- Identify the Need & Constraints
- Research the Problem
- Develop Possible Solutions
- Select a Promising Solution
- Build a Prototype
- Test and Evaluate Prototype
- Redesign as Needed

Check at least 3.

The part of my lesson that went well was...

The part of my lesson that I would do differently next time was...

STEAM MINDSETS AND SKILLSETS PRACTICED

- Curiosity and Imagination
- Growth Mindset
- Courage and Risk-taking
- Persistence and Grit
- Opportunity-Seeking
- Problem-Solving
- Optimism
- Resourcefulness and Adaptability
- Empathy and Altruism
- Creativity
- Teamwork
- Design Thinking
- Prototyping
- Public Speaking

