STEAM MINDED WV

PLANNING TOOL

Lesson / Unit Description:

Time Frame:

What is the real-world connection? What problem are students solving?

Science Standards Addressed:	Technology and Computer Science Standards Addressed:	Math Standards Addressed:

If standards addressed are not on grade level, educators assume responsibility to address grade-level standards.

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.

Arts Domains
☐ Create   ☐ Connect   ☐ Explore   ☐ Perform   ☐ Relate   ☐ Respond

Engineering Design Process
☐ Identify the Need & Constraints   ☐ Select a Promising Solution   ☐ Redesign as Needed
☐ Research the Problem   ☐ Build a Prototype
☐ Develop Possible Solutions   ☐ Test and Evaluate Prototype   *Check at least 3.*

Literacy Connections:

Other curricular wand 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 Infomation

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
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Mathematical Habits of Mind
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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

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