Making Sense Assessment

Make sense of what you learned by writing a short reflection about the phenomena you explored, the science and engineering skills you used, and one question or idea you have about what was learned. Answer the prompts in complete sentences:

3

Three science concepts that I learned and applied in this activity are:

Iterative

Importance of Consistency (controlled)

Small steps (I think of a linear graph) Lwl a y-axis

2

Two science, engineering or computer science skills that I used are:

Science and Engineering Practices:

- ☑ Asking questions (for science) and defining problems (for engineering)
- ☑ Developing and using models
- ☐ Planning and carrying out investigations
- ☐ Analyzing and interpreting data
- ☐ Constructing explanations (for science) and designing solutions (for engineering)
- ☐ Engaging in argument from evidence
- ☐ Obtaining, evaluating, and communicating information

Computer Science Skills:

- ☐ Computational solution design (kind of, I had w/ group)
- ☑ Algorithms and program development
- ☐ Computing innovations
- ☐ Responsible computing

Engineering Design Process:

- ☑ Ask: Identify the Need & Constraints
- ☐ Research the Problem
- ☐ Imagine: Develop Possible Solutions
- ☐ Plan: Select a Promising Solution
- ☐ Create: Build a Prototype
- ☐ Test and Evaluate Prototype
- ☑ Improve: Redesign as Needed

Engineering Design Thinking:

- ☐ Formulating Problems
- ☐ Seeking Solutions
- ☐ Thriving in Uncertainty
- ☐ Collaborating Constantly
- ☐ Prototyping Ideas
- ☑ Iterating Options
- ☐ Reflecting Frequently

1

One question I have or an idea I would like to further explore is:

What is the best way to develop a solution? For example: the 1-100 question, how much should you increase by each time. Should you start extreame- overreaching and underreaching, until you narrow it down?

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Three science concepts that I learned and applied in this activity are:

Iterative Refinement & Feedback loops

Model Simulation

Data Analysis

2

Two science, engineering or computer science skills that I used are:

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1

One question I have or an idea I would like to further explore is:

What other topics could computational models be applied to?

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3

Three science concepts that I learned and applied in this activity are:

iteration (trial + error)

Using data to reassess

Predicting performance through models.

2

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- ❑ Planning and carrying out investigations
- ❑ Analyzing and interpreting data
- ❑ Constructing explanations (for science) and designing solutions (for engineering)
- ❑ Engaging in argument from evidence
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Computer Science Skills:
- ❑ Computational solution design
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Engineering Design Process:
- ❑ Ask: Identify the Need & Constraints
- ❑ Research the Problem
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Engineering Design Thinking:
- ❑ Formulating Problems
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- ❑ Reflecting Frequently

1

One question I have or an idea I would like to further explore is:

how does this transform computers