

Standards:

<https://www.nextgenscience.org/dci-arrangement/hs-ets1-engineering-design>

<https://www.nysed.gov/sites/default/files/programs/standards-instruction/hs-science-learning-standards.pdf>

<https://www.nysed.gov/curriculum-instruction/computer-science-and-digital-fluency-learning-standards>

- Which technology education, mathematics, and science standards relate to problem solving or engineering design?

All three of the ones I looked at address technology and engineering in some capacity.

- How are these standards similar to each other?

They are all similar in the sense that they urge students to solve real world problems and determine how the content can be used to do so.

- How are they different from each other?

They have different levels of granularity when it comes to analyzing the engineering principles. The computer science ones for example goes into much more specific examples of how engineering affects society such as cybersecurity whereas the other standards allude to the effect engineering has on society in a more shallow sense.

- What are your thoughts on engineering design problem solving as a “unifying” concept/skill?

I think it is important for many reasons. One being that all students should be exposed to engineering in our ever-growing technological society. But also, engineering helps with processes of mind that are helpful regardless of what field you are in. It helps students to think outside of the box etc.