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NJSBA STEAM Tank Challenge

Admin STEM for Success
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STEAM Tank Challenge

Submitted by: Natalie Wilson

Name of activity: STEAM Tank Challenge

Age/Grade range: has elementary, middle, and high school levels

STEM discipline(s): engineering, design

What topic does this activity relate to? Creative and critical thinking

Pre-activity / Pre-work (what students should know or prepare before doing engaging in this activity; what teachers need to prepare before leading the activity)**:**

What should the students learn by the end of this activity?
Students should learn about real world issues and faults in current technologies

Tools/supplies needed (indicate quantity and if it needs to be bought + price range):
Access to internet in order to research

Total price (indicate per class or per student):
Should not cost the club unless they do not have access to internet

Step-by-step instructions on how to conduct the activity (attach link if found online and make note of modifications for your class here): (Include e.g., size of groups, images of materials or people doing the activity that might help the reader lead the activity, helpful supporting materials)
https://www.njsba.org/services/isteam-2/steam-tank-challenge/

1. You must first sign up the class through the above link for the challenge in order to receive the rubric for the proposal
2. Separate students into groups of 2-5 students
3. Instruct them to begin researching to invent something new, modify an existing product, or identify a situation or real-world problem that needs resolution
4. Once they decided on a topic, they must then begin to write the proposal for their project
5. If their project application is accepted, the teacher will receive a playbook from the NJSBA on how to continue in the challenge

During activity:

Number of students present:
20

What modifications had to be made to the lesson plans and why (if any)?

Provide feedback: teacher observations, specific student feedback, work products:

Post-activity (reflection):

What aspects of the activity worked well?

What can be improved on?

What suggestions do you have to adjust the lesson for different purposes or populations?

If money was spent on tools/supplies, in your opinion, was the investment worth it?

Provide thoughts on alternative materials, steps or other modifications that might be worthwhile for others to consider.

Additional notes: