

Promising Practices: STEM Technology Transformations

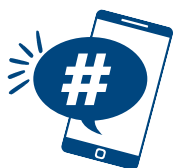


What is it?

Students use the engineering design process to transform one type of technology into another. Students brainstorm things they can make out of their items or the parts from their technology. Then they plan, build, improve, and create. Finally, they share their final project. For example, one group of students took an electric toothbrush and transformed it into a fake tattoo machine using ink.

Impact?

- Computational Thinking
- Dynamic Interdisciplinary Teaming
- Design Thinking
- STEM Career Development



Show us how you did it: [#PromisingPractices](#) [#FreeTeacherResources](#)

About



To learn more about this resource:



[Promising Practices](#)



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Sample



Grade Level

5-12

Additional Resources



[The Engineering Design Process](#)

[The STEM Resource Center](#)

How to do it:

1

Group students in teams of 4-5. Put out assorted tech items such as discarded appliances, old tools, or electronics (items from the [Maricopa County STEM Resource Center](#) work great) and have each group pick an item.

2

Have students brainstorm things they can possibly make out of their item or the parts from their item.

3

Guide students through the Engineering Design Process to plan, build, improve and create a new product.

4

Finally, have students verbally share their final project. Consider having students write a description of the product, a commercial for the product, an owners manual, etc.



Office of the Maricopa County
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schoolsup.org/promising-practices