

The Importance of Design

Description:

Students will redesign a piece of technology to make it more aesthetically pleasing.

Objective(s):

1. Students will reflect and discuss what makes some designs more aesthetically pleasing than others.
2. Students will apply their design ideas to redesign an already made piece of technology.

ISTE/NGSS Standards:

4a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

4c: Students develop, test and refine prototypes as part of a cyclical design process.

5c: Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

MS-ETS-1.1: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS-1.2: Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

Teq Lesson Plan Activity

Essential Question(s):

What is the importance of design in technology?

Materials:

- Paper
- Art supplies - colored pencils, markers, or paint
- EDP Graphic Organizer

<https://docs.google.com/document/d/1UYqqzT3aMgdNVb6-zog02Q4mY686WuM-2iHSEfsyLps/edit>

Do Now:

What things would you consider when buying a piece of technology such as a phone or a car?

Lesson:

1. Discuss with students what makes something more or less aesthetically pleasing when it comes to technology.
2. Students should pick a kind of technology that exists and create a design for it that they think would make the technology look better (For easier management, teacher can provide students with a selection of gadgets to choose from).
3. Before creating their design, students should make a list of what they think are design flaws in the original gadget and how they plan to fix those flaws.
4. Students create a draft of their design and draw/color how they would like. Remind students that the importance is getting across the design, it does not have to be an artistic masterpiece to be a good design.

Closure:

Students will complete the reflection in the EDP graphic organizer.

Extension:

Students can create a more detailed final draft of their design (Teacher can also give an option of creating a 3D version of the design if the student desires).