

Intro to littleBits

Description:

Introduction day to littleBits.

Objective(s):

1. Students will discover the littleBits components and their uses.
2. Students will utilize the Engineering Design Process to build circuits for different purposes.

ISTE/NGSS Standards:

1c: Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

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

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 do we use electronics for in our everyday lives?

Materials:

- littleBit STEM kit
- Engineering Design Challenge Graphic Organizer

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

Do Now:

What is a circuit? Draw how electricity moves in a circuit.

Lesson:

1. Class will work individually or in small groups (2-3 students).
2. Students will discover the purpose of each littleBit and keep track to check if they are correct.
3. Students will use the invention guide to check if they found the correct function of each little bit.
4. Students will build their choice out of the invention guide example circuits to test how the littleBits work.

Closure:

1. Students will complete reflection section of Graphic Organizer.
2. Class will work together to put away littleBits.

Extension:

Students will build their own littleBits circuit and present to the class what they built and how it works.