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EEEEK- A Mouse!

[Download Full Lesson Plan](#)
(Full teacher resource documents are included)

Lesson Focus

Lesson focuses on computer and mechanical engineering and explores how computer mice operate and how engineering provided an interface between man and machine.



Lesson Synopsis

The EEEEEK - A Mouse! activity explores the concept of how engineering solved the problem of human/computer interface. Students disassemble a mouse and explore the movement on the X/Y axis that determines mouse positioning. Students explore design enhancements to the mouse over time, and as a team of "engineers" add further enhancements to current mouse design.

Age Levels: 8-18

Objectives

- Learn about computer/human interface and mouse engineering.
- Learn about ongoing changes to mouse design in response to software changes and human needs.
- Learn about teamwork and the engineering problem solving/design process.

Anticipated Learner Outcomes

As a result of this activity, students should develop an understanding of:

- computer - human interface

- impact of engineering and technology on society
 - engineering problem solving
 - teamwork
-

Lesson Activities

Students learn about how the engineering behind the original development and ongoing design enhancement of the computer mouse have impacted everyday life. Topics examined include problem solving, teamwork, and the engineering design process. Students work in teams to disassemble a mouse, evaluate the design and operation of its component parts, recommend changes to improve functionality through redesign and/or material selection, build a model showing the enhanced mechanics or design, and present to class.

Resources/Materials

- Teacher Resource Documents (attached)
- Student Resource Sheets (attached)
- Student Worksheet (attached)

Alignment to Curriculum Frameworks

Curriculum alignment sheet is included in [PDE](#).

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