

# Teaching Engineering Design Using 3D Printed Rubber Band Cars

## NGSS Alignment

### MS-ETS1-1 Engineering Design

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.

Performance Expectation

Grade: Middle School (6-8)

### MS-ETS1-2 Engineering Design

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

Performance Expectation

Grade: Middle School (6-8)

### MS-ETS1-3 Engineering Design

Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

Performance Expectation

Grade: Middle School (6-8)

### MS-ETS1-4 Engineering Design

Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

Performance Expectation

Grade: Middle School (6-8)