**High School**

**HS-PS2-6**
Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials.

**HS-ETS1-2**
Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

**Middle School**

**MS-PS2-2**
Plan an investigation to provide evidence that the change in an object’s motion depends on the sum of the forces on the object and the mass of the object.

**MS-ETS1-3**
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.

**MS-ETS1-4**
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.

**Grades 3-5**

**5-PS1-3**
Make observations and measurements to identify materials based on their properties.

**5-PS1-4**
Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

**5-PS2-1**
Support an argument that the gravitational force exerted by Earth on objects is directed down.

**MS-ETS1-3**
Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

**3-5-ETS1-3**
Plan and carry out in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.