

LINCOLN PUBLIC SCHOOLS
Science Learning Expectations: Grade 5:

**Technology &
Engineering
Materials & Tools**

Engineering Design

Mass Standard

Identify materials used to accomplish a design task based on a specific property, i.e., weight, strength, hardness, and flexibility.
Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely.
Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.

Big Ideas

- ❑ Technology extends our abilities to change and modify the natural world.

Key Outcomes

- ❑ Students will demonstrate an understanding that **engineering problems can be solved through the applications of different kinds of simple machines** by using the engineering design process to explain how simple machines make work easier.

Essential Knowledge and Skills

Students will know:

- ❑ Apply the Engineering Design Process
- ❑ Apply science and math in engineering
- ❑ Employ creativity and careful thinking to solve problems

*Scientific Inquiry Standards are embedded in each unit of study