

## Report: MN Benchmarks

### The Nature Of Science And Engineering

4th Grade - EL Science

SCI.04.1.2.1.1.1	Explain the difference between designed products and the natural world.
SCI.04.1.2.1.1.2	Describe the positive and negative impacts that designed products have on the natural world.
SCI.04.1.2.2.1.1	Identify and investigate a design solution and describe how it was used to solve an everyday problem
SCI.04.1.2.2.2.1	Generate ideas and possible constraints for solving a problem through engineering design.
SCI.04.1.2.2.3.1	Test and evaluate solutions considering advantages and disadvantages for the engineering solution, and communicate the result effectively.
SCI.04.1.3.3.1.1	Write about a situation in which one invention led to another in a science journal and notebook.

### Physical Science

4th Grade - EL Science

SCI-04.2.1.2.1.1	Explain that heating and cooling can cause changes in states of matter.
SCI.04.2.1.1.1.1	Measure temperature, volume, weight and length using appropriate tools and unit.
SCI.04.2.1.2.1.2	Distinguish between states of matter (solid, liquids, and gases).
SCI.04.2.1.2.2.1	Describe how the states of matter change as a result of heating and cooling.
SCI.04.2.3.1.1.1	Explain the transfer of heat energy when warm and cool objects are together.
SCI.04.2.3.1.2.1	Demonstrate how magnets can repel or attract each other and how they attract certain metal objects.
SCI.04.2.3.1.3.1	Compare materials that are conductors and insulators of heat and/or electricity.
SCI.04.2.3.2.1.1	Identify several ways to generate heat energy.
SCI.04.2.3.2.2.1	Construct a simple electrical circuit using wires, batteries, and light bulbs.
SCI.04.2.3.2.3.1	Create an electromagnet to demonstrate how an electric current can produce a magnetic force.

### Earth Science

4th Grade - EL Science

SCI.04.3.1.3.1.1	Explain that rocks can be uniform or made of mixtures of different minerals.
SCI.04.3.1.3.2.2	Describe and classify minerals based on their physical properties in a table.
SCI.04.3.2.3.1.1	Create, label, and explain a water cycle diagram identifying where water collects on earth and how it moves.
SCI.04.3.4.1.1.1	Explain how people obtain and use water in their homes and communities and how that affects water supply and water quality.

**Life Science**  
4th Grade - EL Science

SCI.04.4.4.2.1.1	Explain the body's defense systems against germs and how they enter the body.
SCI.04.4.4.2.2.1	Identify diseases that can be prevented by vaccinations.