

Report: MN Benchmarks

The Nature Of Science And Engineering

5th Grade - EL Science

SCI.05.1.1.1.1.1	Explain why evidence, clear communication, accurate record keeping, replication by others, and openness to scrutiny are essential parts of doing science.
SCI.05.1.1.1.2.1	Recognize when scientific investigations are replicated they generally produce the same result.
SCI.05.1.1.1.2.2	Investigate and report possible causes of inconsistent results.
SCI.05.1.1.1.3.1	Understand that different explanations for the same observations usually lead to making more observations and trying to resolve the differences.
SCI.05.1.1.1.4.1	Explain how different models can be used to represent natural phenomena and models have limitations.
SCI.05.1.1.2.1.1	Create a scientific question and plan an appropriate scientific investigation to answer the question.
SCI.05.1.1.2.2.1	Conduct the scientific investigation.
SCI.05.1.1.2.3.1	Evaluate the scientific investigation.
SCI.05.1.3.2.1.1	List how men and women of all cultures, have been involved in engineering design and scientific inquiry.
SCI.05.1.3.4.1.1	Use appropriate tools and techniques in gathering data, i.e.: spring scale, metric measurements, tables, mean/median/range, spreadsheets, and appropriate graphs.
SCI.05.1.3.4.2.1	Create and analyze different kinds of maps of the student's community and of Minnesota, i.e.: weather maps, city maps, aerial photos, regional maps, or online map resources.

Physical Science

5th Grade - EL Science

SCI.05.2.2.1.1.1	Identify examples of simple machines and demonstrate how they move and operate.
SCI.05.2.2.1.2.1	Demonstrate ways an object's motion is affected by forces.
SCI.05.2.2.1.3.1	Demonstrate that a greater force on an object can produce a greater change in motion.

Earth Science

5th Grade - EL Science

SCI.05.3.1.2.1.1	Explain how, overtime, rocks weather and combine and with organic matter to form soil.
SCI.05.3.1.2.2.1	Explain how the features of the earth's surface are formed by slow and rapid processes i.e.: floods, earthquakes, erosion.

SCI.05.3.4.1.1.1	Identify Minnesota renewable and non-renewable resources and describe how they are used.
SCI.05.3.4.1.2.1	Describe how mineral and energy resources are obtained and processed.
SCI.05.3.4.1.2.2	Explain how processing changes mineral properties to make them useful i.e.: iron ore to iron.
SCI.05.3.4.2.3.1	Compare the impact of individual decisions on natural systems.
Life Science 5th Grade - EL Science	
SCI.05.4.1.1.1.1	Explain how plant structures and functions help plants to grow, reproduce and survive.
SCI.05.4.1.1.1.2	Explain how animal structures and functions help animals to grow, reproduce and survive.
SCI.05.4.1.1.1.3	Compare and contrast how different structures and functions of plants and animals help them adapt to different environments.
SCI.05.4.2.1.1.1	Explain the living and nonliving parts of a natural system such as a prairie or wetland.
SCI.05.4.2.1.1.2	Design and construct a habitat for a living organism that meets its need for food, air and water.
SCI.05.4.2.1.2.1	Compare and contrast what would happen to the system i.e.: wetland, if one of its parts changes.
SCI.05.4.4.1.1.1	Identify examples of beneficial and harmful human interactions with natural systems.