

## Nature of Science

Science is a discipline grounded in empirical observation, reproducible experimentation, and peer-reviewed interpretation. At MICDS, we affirm that science is distinct from belief systems and pseudoscientific claims; it is a rigorous, self-correcting process for understanding the natural world. Our science instruction reflects the foundational truth that scientific knowledge, while always subject to revision based on new evidence, is among the most reliable forms of human understanding.

We explicitly teach that scientific knowledge is tentative yet durable, built upon systematic observation, logical reasoning, and testable hypotheses. The scientific process includes creativity and inference, but its strength lies in its demand for evidence and its openness to scrutiny. At MICDS, students are taught to think critically, ask questions, engage in argument from evidence, and understand that scientific theories and laws are not guesses, but powerful, explanatory models grounded in data.

We also teach the nature of science as a human endeavor, shaped by cultural context, subject to cognitive bias, but ultimately accountable to a community of practitioners who engage in peer review and replication. This is how we help students learn to differentiate between science and non-science.

Our science curriculum aligns with national frameworks and recommendations from the National Science Teaching Association. As such, we ensure that science instruction remains objective, evidence-based, and insulated from non-scientific influence. Science is a method for building knowledge, not defending ideology.

