SC.5.N.1.1
Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations; experiments requiring the identification of variables, collecting and organizing data; interpreting data in charts, tables, and graphics; analyze information; make predictions; and defend conclusions.

SC.5.N.1.2
Explain the difference between an experiment and other types of scientific investigation.

SC.5.N.1.3
Recognize and explain the need for repeated experimental trials.

SC.5.N.1.4
Identify a control group and explain its importance in an experiment.

SC.5.N.1.5
Recognize and explain that authentic scientific investigation frequently does not parallel the steps of “the scientific method.”

SC.5.N.1.6
Recognize and explain the difference between personal opinion/interpretation and verified observation.

SC.5.N.2.1
Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.

SC.5.N.2.2
Recognize and explain that when scientific investigations are carried out, the evidence produced by those investigations should be replicable by others.