



Physics Content Standards

DOMAIN 1: Scientific Investigation

Topic 01: Scientific Investigation

- 1.01.01 Use dimensional analysis and equations to calculate physical quantities with correct significant digits, scientific notation and SI units.
- 1.01.02 Identify sound experimental design on the basis of:
1. the testability of questions and hypotheses
 2. the accuracy, precision, and reproducibility of the data acquired
 3. the distinction between variable and controlled parameters
 4. the use of appropriate tools and measurement technologies
 5. the use of appropriate laboratory and safety procedures
- 1.01.03 Analyze experimental results by:
1. identifying discrepant results and the possible sources of error, including uncontrolled conditions
 2. using appropriate graphical, pictorial, and/or statistical methods to draw conclusions

DOMAIN 2: General Science Knowledge

Topic 01: General Science Knowledge

- 2.01.01 Use principles of estimation to determine physical properties of common objects within an order of magnitude (e.g., a comfortable walking pace is 1.0×10^0 m/s, not 1.0×10^{-1} m/s or 1.0×10^1 m/s).