

Advanced – Performance Level 4 (Score range: 579-900)

Form conclusions/predictions; state if hypotheses are supported; explain patterns using data; describe temperature effect on particles; separate mixtures using density; apply law of conservation of mass to chemical changes; predict gravity effects on mass/weight; describe a compound/mixture; compare wavelengths for colors of light; explain body system interactions; compare gas exchange in organisms; describe how photosynthesis/respiration relate; understand energy pyramids; interpret rock layers; describe the atmosphere; explain theories on Solar System/Earth/Moon formation; describe a model for a given process.

Proficient – Performance Level 3 (Score range: 507-578)

Design investigations; describe particle arrangement of phases; apply law of conservation of mass to physical changes; describe atoms, elements, molecules; relate distance/time/speed of objects; evaluate acting forces/types of energy; compare circuits; identify organelle function; describe photosynthesis/respiration; analyze flow of energy; describe mitosis/meiosis; infer offspring traits; describe limiting population factors; understand plate boundaries; interpret weather data; identify ocean characteristics; describe effects of Moon location; explain when results are comparable; describe why knowledge changes.

Partially Proficient – Performance Level 2 (Score range: 459-506)

Identify independent/dependent variables; record data using tools/units; distinguish physical/chemical changes; describe what makes up white light; identify classifying characteristics; differentiate between animal/plant/single cell organisms; classify communicable/noncommunicable diseases and recognize causes; differentiate between renewable/nonrenewable resources; describe fossil formation; identify causes of weather changes/patterns; explain processes connecting the water cycle; compare Sun/Moon/Earth characteristics; understand Earth's tilt/motion results in days/years/seasons; identify a controlled factor.

Unsatisfactory – Performance Level 1 (Score range: 300-458)

Students have a very limited understanding of scientific inquiry processes, as well as life, physical, and earth and space science concepts and vocabulary.