

Grade 8 Science Assessment

Eligible Texas Essential
Knowledge and Skills

STAAR Grade 8 Science Assessment

Reporting Category 1 : MCID

Grade 6

(6.6) Matter and energy.

Reporting Category 2: Force, Motion, and Energy

The student will demonstrate an understanding of force, motion, and energy and their relationships.

Grade 8

- (8.6) Force, motion, and energy. The student knows that there is a relationship between force, motion, and energy. The student is expected to
- (A) demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion; Readiness Standard
 - (B) differentiate between speed, velocity, and acceleration; and Supporting Standard
 - (C) investigate and describe applications of Newton's three laws of motion such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches. Readiness Standard

Grade 6

- (6.8) Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy. The student is expected to
- (A) compare and contrast potential and kinetic energy; Supporting Standard
 - (C) calculate average speed using distance and time measurements; and Supporting Standard
 - (D) measure and graph changes in motion. Supporting Standard
- (6.9) Force, motion, and energy. The student knows that the Law of Conservation of Energy states that energy can neither be created nor destroyed, it just changes form. The student is expected to
- (C) demonstrate energy transformations such as energy in a flashlight battery changes from chemical energy to electrical energy to light energy. Supporting Standard

Reporting Category 3 : Earth and Space

The student will demonstrate an understanding of components, cycles, patterns, and natural events of Earth and space systems.

Grade 8

(8.7) Earth and space. The student knows the effects resulting from cyclical movements of the Sun, Earth, and Moon. The student is expected to

(A) model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the Sun, causing changes in seasons; Readiness Standard

(B) dem1.229]TJ -0.0dTcE.0.001 T

Reporting Category 4 :
Organisms and Environments

The student will demonstrate an understanding of the structures and functions of living organisms and their interdependence on each other and with their environment .

Grade 8

(8.11) Organisms and environments. The student knows that interdependence

Scientific Investigation and Reasoning Skills

These skills will not be listed under a separate reporting category. These standards will be incorporated into at least 40% of the test in reporting categories 1–4 and will be identified along with content standards.

Grade 8

(8.1) Scientific investigation and reasoning. The student, for at least 40% of

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