

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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