



***How Does It Work?* is aligned to the Science TEKS for Kindergarten through Grade 5.**

Science, Kindergarten

(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

- (B) plan and conduct simple descriptive investigations such as ways objects move
- (E) communicate observations with others about simple descriptive investigations

(6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life. The student is expected to:

- (A) use the five senses to explore different forms of energy such as light, heat, and sound
- (C) observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside
- (D) observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow

Science, Grade 1

(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

- (A) ask questions about organisms, objects, and events observed in the natural world
- (B) plan and conduct simple descriptive investigations such as ways objects move
- (E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations

(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

- (B) make predictions based on observable patterns

(6) Force, Motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life. The student is expected to:

- (A) identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life

- (C) describe the change in the location of an object such as closer to, nearer to, and farther from
- (D) demonstrate and record the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow

Science, Grade 2

(2) Scientific investigation and reasoning. The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations. The student is expected to:

- (A) ask questions about organisms, objects, and events during observations and investigations
- (E) communicate observations and justify explanations using student-generated data from simple descriptive investigations

(3) Scientific investigation and reasoning. The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:

- (B) make predictions based on observable patterns

(6) Force, Motion, and energy. The student knows that forces cause change and energy exists in many forms. The student is expected to:

- (C) trace the changes in the position of an object over time such as a cup rolling on the floor and a car rolling down a ramp
- (D) compare patterns of movement of objects such as sliding, rolling, and spinning

Science, Grade 3

(6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms. The student is expected to:

- (A) explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life
- (B) demonstrate and observe how positions and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons
- (C) observe forces such as magnetism and gravity acting on objects

Science, Grade 4

(6) Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

- (A) differentiate among forms of energy, including mechanical, sounds, electrical, light, and heat/thermal
- (C) demonstrate that electricity travels in a closed path, creating an electrical circuit, and explore an electromagnetic field
- (D) design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism

Science, Grade 5

(1) Scientific investigation and reasoning. The student uses scientific methods during laboratory and outdoor investigations. The student is expected to:

- (A) describe, plan, and implement simple experimental investigations testing one variable

(6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

- (A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy
- (B) demonstrate that the flow of electricity in circuits requires a complete path through which an electric current can pass and can produce light, heat, and sound
- (C) demonstrate that light travels in a straight line until it strikes an object or travels through one medium to another and demonstrate that light can be reflected such as the use of mirrors or other shiny surfaces and refracted such as the appearance of an object when observed through water