

Unit of Study—Objective 4 – Physical Science – Forces & Forms of Energy

TEKS #	Knowledge and Skill TEK	Student Expectation	Vocabulary	Tools	Instructional/Assessment Resources
5.8A	The student knows that energy occurs in many forms.	Differentiate among forms of energy including light, heat, electrical , and solar energy	Energy Kinetic energy Potential energy Conduction Convection Radiation Temperature Heat		Video Streaming: “Getting to know Energy” Forms of Energy Foldable: Dyna Zykes Energy Game: Kamico Bill Nye: Energy Video
5.8B	The student knows that energy occurs in many forms.	Identify and demonstrate everyday examples of how light is reflected, such as from tinted windows, and refracted, such as in cameras, telescopes, and eyeglasses	Reflection Refraction Lens	Lens Flashlight Prisms	Versatiles: Light energy
5.8C	The student knows that energy occurs in many forms.	Demonstrate that electricity can flow in a circuit and can produce heat, light, sound, and magnetic effects	Electric force Electric current Conductor Electric circuit Electric charge Insulator Resistor Electromagnet	Aluminum foil Manila Folder Masking tape Markers Battery Light bulb Alligator clips	Create Circuit Cards to show how a complete circuit works.

3.6A TAKS	The student knows that forces cause change.	Measure and record changes in the position and direction of the motion of an object to which a force such as a push or pull has been applied	Force Friction Magnetism Gravitation Balanced forces Unbalanced forces Acceleration Net force Work Power Machine	Tile Wax paper Sand paper Plastic wrap Carpet	Friction Lab Forces & Gravity: Video Streaming Simple Machines: EDHEAD website
5.1A TAKS	The student conducts field and lab investigations following home and school safety procedures and environmentally appropriate and ethical practices	Demonstrate safe practices during field and lab investigations	Plant, eye, heating, clothing, poison, animal, fire, glassware, electrical, sharp objects		Hands on Lab TEST.
5.2B TAKS	The student uses scientific methods during field and lab investigations	Collect information by observing and measuring	Triple beam balance Beaker Flask Graduated cylinder Thermometer Test tube Test tube rack Eyedropper/pipette Tweezers/forceps Goggles Ruler/meter stick	Triple beam balance Beaker Flask Graduated cylinder Thermometer Test tube Test tube rack Eyedropper/pipette Tweezers/forceps Goggles Ruler/meter stick	Hands on Lab TEST.

5.2B TAKS	The student uses scientific methods during field and lab investigations.	Collect information by observing and measuring	Triple beam balance Beaker Flask Graduated cylinder Thermometer Test tube Test tube rack Eyedropper/pipette Tweezers/forceps Goggles Ruler/meter stick	Triple beam balance Beaker Beaker Flask Graduated cylinder Thermometer Test tube Test tube rack Eyedropper/pipette Tweezers/forceps Goggles Ruler/meter stick.	Each class using the proper lab equipment compares their results with each other in order to see how multiple trials gets a better and more reliable conclusion.
5.4 A,B TAKS	The student knows how to use a variety of tools and methods to conduct science inquiry.	A. collect and analyze information using tools including calculators, microscopes, cameras, sound recorders, computer, hand lenses, rulers, thermometers, compasses, balances, hot plates, meter sticks, timing devices, magnets, collecting nets, and safety goggles B. demonstrate that repeated investigations may increase the reliability of results	Triple beam balance Beaker Flask Graduated cylinder Thermometer Test tube Test tube rack Eyedropper/pipette Tweezers/forceps Goggles Ruler/meter stick	Triple beam balance Beaker Beaker Flask Graduated cylinder Thermometer Test tube Test tube rack Eyedropper/pipette Tweezers/forceps Goggles Ruler/meter stick	
5.8D	The student knows that energy occurs in many forms.	verify that vibrating an object can produce sound	Sound waves Pitch Volume		Versatiles: Sound Energy

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Fifth Grade Science
Second Six Weeks