

Colorado Energy Course Scope and Sequence

Course Name	Energy Basics- Middle School		Course Details	This course can be a 6-9 week exploratory course or dive deeper into the content for a semester long Energy course.
			Course = 0.50 Carnegie Unit Credit	
Course Description	This course will provide middle school students with the baseline understanding of the energy industry and concepts as they progress towards a high school Energy program. It walks through forms of energy, renewable vs. non-renewable, measurements, and use of energy from different energy sectors. This course can be a stand alone semester course diving deeper into the concepts and applications or a basic surface level understanding course as a 6 week exploratory. Resources linked in the far right column provide some context to the outcomes/measurements and resources for teachers to lean on through the Energy Information Administration system.			
Note:	This is a suggested scope and sequence for the course content. The content will work with any textbook or instructional resource. If locally adapted, make sure all essential knowledge and skills are covered.			
SCED Identification #	Schedule calculation based on 60% of a semester instructional time. Scope and sequence allows for additional time for guest speakers, student presentations, field trips, remediation, or other content topics.			
All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at https://www.cde.state.co.us/standardsandinstruction/essentialskills				
Unit Number, Title and Brief Description	CTE or Academic Standard Alignment	Competency / Performance Indicator	Outcome / Measurement	Resources
Energy Basics	Forms of Energy Renewable vs. Non-renewable energy	<ul style="list-style-type: none"> - Identify the different forms of energy and how energy has the ability to do work. - Differentiate between renewable and non-renewable energy. 	<ul style="list-style-type: none"> - Define heat, light, motion, electrical, chemical, nuclear, and gravitational energy. - Define renewable energy sources of solar energy, geothermal energy, wind energy, biomass, and hydropower. - Define non-renewable energy sources of petroleum products, hydrocarbon gas liquids, natural gas, coal, and nuclear energy. 	https://www.eia.gov/kids/what-is-energy/energy-basics.php
Forms of Energy	Potential vs. Kinetic Energy	Differentiate between potential and kinetic energy.	<ul style="list-style-type: none"> - Define potential energy as stored energy and the energy of position including chemical, mechanical, nuclear, and gravitational energy. - Define kinetic energy as the motion of waves, electrons, atoms, molecules, substances, and objects including radiant, thermal, motion, sound, and electrical energy. 	https://www.eia.gov/kids/what-is-energy/forms-of-energy.php

