

**5th Grade  
Energy Curriculum  
Year at a Glance**

1st Nine Weeks	2nd Nine Weeks	3rd Nine Weeks	4th Nine Weeks
<p><b>Big Idea: Intro to Electricity</b> <i>Essential Question:</i> 1. How does energy have the ability to work or cause change?</p> <p><b>Big Idea: Forms of Energy</b> <i>Essential Question:</i> 1. What is Energy? 2. Why is it important to have different forms of energy?</p>	<p><b>Big Idea: Electrical Circuits &amp; Energy Transformations</b> <i>Essential Question:</i> 1. How can electric circuits help transform electricity to heat, light, mechanical or sound energy? 2. How does a battery transform to other forms of energy?</p>	<p><b>Big Idea: Renewable Energy</b> <i>Essential Question:</i> 1. How can force and motion be used to generate renewable energy? 2. What are some forms of renewable energy?</p>	<p><b>Big Idea: Energy Conservation</b> <i>Essential Question:</i> 1. Using what we know about science, what impact does energy efficiency and conservation have on the natural world around us?</p>
<p><b>Key Vocabulary:</b> Energy, Potential Energy, Circuit, Positive Charge, Negative Charge, Reaction, Electrons, Current, Electricity, Simple Circuit, Battery, Complete Circuit, Incomplete Circuit, Attraction, Power Stations, Turbines, Generators, Volt, Megawatt, Fuse, Static Electricity, Amperes (amps) / Motion, Transfer, Energy, Kinetic Energy, Potential Energy, Electric Currents, Electrical Energy, Light Energy, Sound Energy, Heat Energy, Chemical Energy, Electromagnetic Energy, Mechanical Energy, Nuclear Energy, Convert, Natural Resources, Renewable, Fuel</p>	<p><b>Key Vocabulary:</b> Motion, Electricity, Electrical Circuit, Electrons, Transformation, Open Circuit, Closed Circuit, Electric Current, Series Circuit, Parallel Circuit</p>	<p><b>Key Vocabulary:</b> Renewable Energy, Non-renewable Energy, Fossil Fuels, Biomass, Clean Energy, Turbine, Generator, Hydroelectric Energy, Geothermal Energy Solar Energy, Wind Energy, Energy Sources, Electromagnetic Waves</p>	<p><b>Key Vocabulary:</b> Efficiency, Conservation, Sustainability, Energy Consumption, Reduce, Reuse, Recycle, Energy Sources, Renewable Resources</p>
Science: SC.5.P.10.4	Science: SC.5.P.10.4	Science: SC.5.P.10.2	Science: 3-5-ETS1-2
Science: SC.5.P.10.1	Science: SC.5.P.11.1	Mathematics: MAFS.5.NBT.2.7	Mathematics: MAFS.5.NF.1.2
Mathematics: MAFS.5.NBT.2.5	Mathematics: MAFS.5.NBT.2.7		Language Arts: LAFS.K12.W.1.1
Language Arts: LAFS.5.RI.2.4			
Language Arts: LAFS.5.RI.3.7			
<p><b>Big Idea: Understanding Charges</b> <i>Essential Question:</i> 1. What causes and electric charge to occur? 2. What is the relationship between and insulator and a conductor?</p>	<p><b>Big Idea: Force &amp; Motion of an Object</b> <i>Essential Question:</i> 1. What makes objects move?</p>	<p><b>Big Idea: Energy Efficiency</b> <i>Essential Question:</i> 1. Using what we know about science, what impact does energy efficiency and conservation have on the natural world around us?</p>	<p><b>Big Idea: Invention &amp; Innovation</b> <i>Essential Question:</i> 1. What technology, new or improved, would make our daily lives better?</p>
<p><b>Key Vocabulary:</b> Static Electricity, Force, Electric Force, Repel, Attract, Electric Discharge, Magnet, Insulator, Conductor</p>	<p><b>Key Vocabulary:</b> Position, Force, Motion, Balanced Forces, Unbalanced Forces, Gravity, Speed, Acceleration, Velocity, Pull, Push, Mass, Friction, Magnet, Air Resistance, Inertia</p>	<p><b>Key Vocabulary:</b> Efficiency, Conservation, Sustainability, Energy Consumption, Reduce, Reuse, Recycle, Energy Sources, Renewable Resources</p>	<p><b>Key Vocabulary:</b> Innovation, Invention, Technology, Engineering</p>
Science: SC.5.P.10.3	Science: SC.5.P.13.1	Science: 3-5-ETS1-2	Science: 3-5-ETS2.B
Science: SC.5.P.11.2	Mathematics: MAFS.5.NBT.2.7	Mathematics: MAFS.5.NF.1.2	Mathematics: MAFS.5.NF.1.1
Mathematics: MAFS.5.NBT.2.7	Language Arts: LAFS.5.RI.2.4	Language Arts: LAFS.K12.W.1.1	Language Arts: LAFS.5.SL.1.1
Language Arts: LAFS.5.SL.1.1			