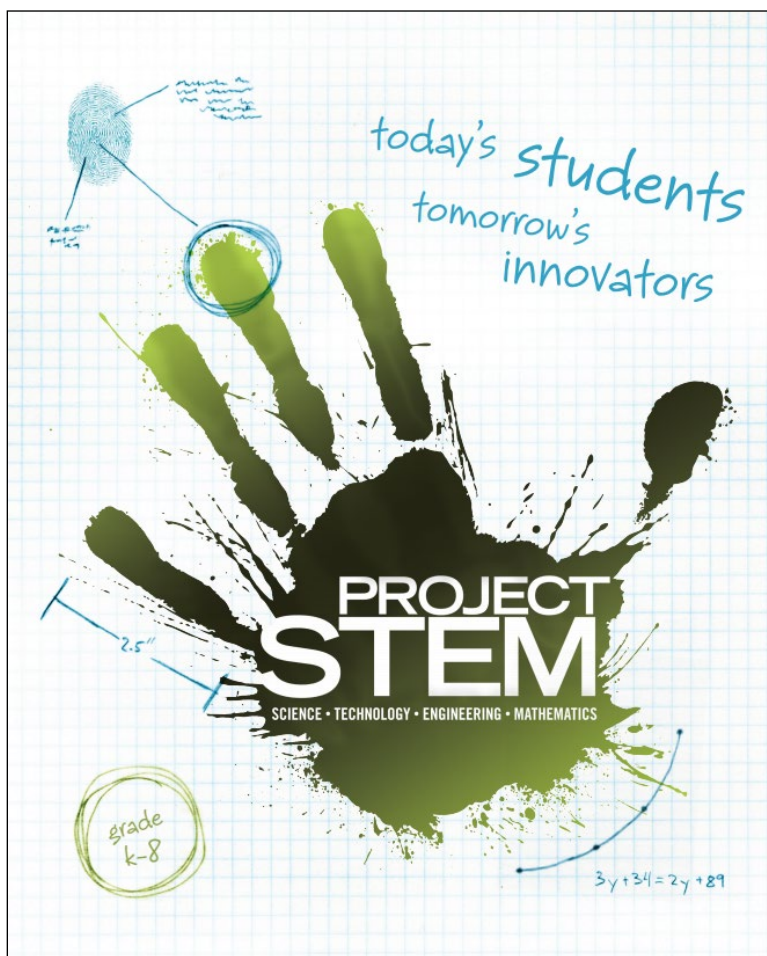


A Correlation of  
**Project STEM**  
**Grades 6-8**



To the  
**Florida Science Standards**  
**Grade 8**

**A Correlation of Project STEM: Grades 6-8  
To the  
Florida Science Standards for Grade 8**

<b>Florida Science Standards Grade 8</b>	<b>Project STEM Grades 6-8</b>
SC.8.E.5.1 Recognize that there are enormous distances between objects in space and apply our knowledge of light and space travel to understand this distance.	<b>SE/TE:</b> Designing Space Vehicles, 1S-21S
SC.8.E.5.2 Recognize that the universe contains many billions of galaxies and that each galaxy contains many billions of stars.	For supporting content, please see: <b>SE/TE:</b> Designing Space Vehicles, 1S-21S
SC.8.E.5.3 Distinguish the hierarchical relationships between planets and other astronomical bodies relative to solar system, galaxy, and universe, including distance, size, and composition.	<b>SE/TE:</b> Designing Space Vehicles, 1S-21S
SC.8.E.5.4 Explore the Law of Universal Gravitation by explaining the role that gravity plays in the formation of planets, stars, and solar systems and in determining their motions.	<b>SE/TE:</b> Designing Roller Coasters, 1R-22R
SC.8.E.5.7 Compare and contrast the properties of objects in the Solar System including the Sun, planets, and moons to those of Earth, such as gravitational force, distance from the Sun, speed, movement, temperature, and atmospheric conditions.	<b>SE/TE:</b> Designing Space Vehicles, 1S-21S
SC.8.E.5.9.1 Explain the impact of objects in space on each other including the Sun on the Earth including seasons and gravitational attraction, the Moon on the Earth, including phases, tides, and eclipses, and the relative position of each body.	For supporting content, please see: <b>SE/TE:</b> Designing Roller Coasters, 1R-22R
SC.8.E.5.10 Assess how technology is essential to science for such purposes as access to outer space and other remote locations, sample collection, measurement, data collection and storage, computation, and communication of information.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S
SC.8.E.5.12 Summarize the effects of space exploration on the economy and culture of Florida.	For supporting content, please see: <b>SE/TE:</b> Designing Space Vehicles, 1S-21S
SC.8.L.18.1 Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen.	For supporting content, please see: <b>SE/TE:</b> Designing Eco-Friendly Dams, 1D-22D
SC.8.L.18.4 Cite evidence that living systems follow the Laws of Conservation of Mass and Energy.	For supporting content, please see: <b>SE/TE:</b> Designing Eco-Friendly Dams, 1D-22D

**SE = Student Edition**

**TE = Teacher's Edition**

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SC.8.N.1.1 Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.1.2 Design and conduct a study using repeated trials and replication.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.1.3 Use phrases such as 'results support' or 'fail to support' in science, understanding that science does not offer conclusive 'proof' of a knowledge claim.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.1.4 Explain how hypotheses are valuable if they lead to further investigations, even if they turn out not to be supported by the data.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.1.5 Analyze the methods used to develop a scientific explanation as seen in different fields of science.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.1.6 Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W

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<b>Florida Science Standards Grade 8</b>	<b>Project STEM Grades 6-8</b>
SC.8.N.2.1 Distinguish between scientific and pseudoscientific ideas.	For supporting content, please see: <b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing a Water Purification System, 1W-22W
SC.8.N.2.2 Discuss what characterizes science and its methods.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.3.1 Select models useful in relating the results of their own investigations.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.4.1 Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Eco-Friendly Dams, 1D-22D Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.N.4.2 Explain how political, social, and economic concerns can affect science, and vice versa.	<b>SE/TE:</b> Building for Earthquakes, 1E-23E Designing Space Vehicles, 1S-21S Designing Prosthetic Devices, 1P-22P Designing Roller Coasters, 1R-22R Designing a Water Purification System, 1W-22W
SC.8.P.8.1 Explore the scientific theory of atoms (also known as atomic theory) by using models to explain the motion of particles in solids, liquids, and gases.	For supporting content, please see: <b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.8.2 Differentiate between weight and mass recognizing that weight is the amount of gravitational pull on an object and is distinct from, though proportional to, mass.	For supporting content, please see: <b>SE/TE:</b> Designing Roller Coasters, 1R-22R
SC.8.P.8.3 Explore and describe the densities of various materials through measurement of their masses and volumes.	<b>SE/TE:</b> Designing a Water Purification System, 1W-22W

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SC.8.P.8.4 Classify and compare substances on the basis of characteristic physical properties that can be demonstrated or measured; for example, density, thermal or electrical conductivity, solubility, magnetic properties, melting and boiling points, and know that these properties are independent of the amount of the sample.	<b>SE/TE:</b> Designing Space Vehicles, 1S-21S Designing a Water Purification System, 1W-22W
SC.8.P.8.5 Recognize that there are a finite number of elements and that their atoms combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter.	<b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.8.6 Recognize that elements are grouped in the periodic table according to similarities of their properties.	For supporting content, please see: <b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.8.7 Explore the scientific theory of atoms (also known as atomic theory) by recognizing that atoms are the smallest unit of an element and are composed of sub-atomic particles (electrons surrounding a nucleus containing protons and neutrons).	For supporting content, please see: <b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.8.8 Identify basic examples of and compare and classify the properties of compounds, including acids, bases, and salts.	For supporting content, please see: <b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.8.9 Distinguish among mixtures (including solutions) and pure substances.	<b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.9.1 Explore the Law of Conservation of Mass by demonstrating and concluding that mass is conserved when substances undergo physical and chemical changes.	For supporting content, please see: <b>SE/TE:</b> Designing a Water Purification System, 1W-22W
SC.8.P.9.2 Differentiate between physical changes and chemical changes.	For supporting content, please see: <b>SE/TE:</b> Designing a Water Purification System, 1W-22W

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