

Science Curriculum Map 2019-2020
8th Grade



Physical Science - Quarter 1

Date	Standard	Assessment	Additional Information/Extension Activities
<p>Week 1 Week 2</p>	<p>*Culture Camp* Intro to Westside and Class Culture</p> <p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS7. Students will question scientific claims and arguments effectively. S8CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved. S8CS9. Students will understand the features of the process of scientific inquiry.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lab Safety <input type="checkbox"/> Safety Symbols <input type="checkbox"/> Scientific Method <input type="checkbox"/> Controls and Variables <input type="checkbox"/> Observation, Inference, Graphing (process skills) <p>Summative Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Pendulum Lab <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Science Process Skills <input type="checkbox"/> Graphing 	<ul style="list-style-type: none"> <input type="checkbox"/> Lab Safety Contract <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Lab Safety Game

<p>Week 3</p>	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. S8CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Matter</u> S8P1. Obtain, evaluate, and communicate information about the structure and properties of matter. b. Describe the difference between pure substances (elements and compounds) and mixtures.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.): <input type="checkbox"/> Categories of Matter <input type="checkbox"/> Atomic Structure</p> <p>Pre-Assessment <input type="checkbox"/> Identification of Matter <input type="checkbox"/> Categories of Matter</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Pickle in a Jar Scenario
<p>Week 4</p>	<p><u>Characteristics of Science</u> S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Matter</u> S8P1. Obtain, evaluate, and communicate information about the structure and properties of matter. d. Distinguish between physical and chemical properties of matter as physical (i.e. density, melting point, boiling point or chemical (reactivity, combustibility). f. Recognize that there are more than 100 elements and some have similar properties as shown on the Periodic Table of Elements.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.): <input type="checkbox"/> Properties of Matter <input type="checkbox"/> Atomic Structure</p> <p>Pre-Assessment <input type="checkbox"/> Physical/Chemical Properties <input type="checkbox"/> Periodic Table</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Lab

Week 4	<p><u>Characteristics of Science</u> S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Matter</u> S8P1. Obtain, evaluate, and communicate information about the structure and properties of matter. d. Distinguish between physical and chemical properties of matter as physical (i.e. density, melting point, boiling point or chemical (reactivity, combustibility). f. Recognize that there are more than 100 elements and some have similar properties as shown on the Periodic Table of Elements.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Element Characteristics <input type="checkbox"/> Periodic Table Arrangement 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Element Project
Week 5	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Matter</u> S8P1. Students will examine the scientific view of the nature of matter. c. Describe the movement of particles in solids, liquids,</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> States of Matter <input type="checkbox"/> State Changes <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> States/Phases of Matter <input type="checkbox"/> Physical/Chemical Changes 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> States of Matter Role Play <input type="checkbox"/> Lab

	<p>gases, and plasma states.</p> <p>S8P2. Students will be familiar with the forms and transformations of energy.</p> <p>b. Explain the relationship between potential and kinetic energy.</p>		
Week 6	<p><u>Characteristics of Science</u></p> <p>S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p> <p>S8CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities utilizing safe laboratory procedures.</p> <p>S8CS6. Students will communicate scientific ideas and activities clearly.</p> <p>S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Matter</u></p> <p>S8P1. Students will examine the scientific view of the nature of matter.</p> <p>e. Distinguish between changes in matter as physical (i.e. physical change) or chemical (development of a gas, formation of precipitate, and change in color).</p> <p>g. Identify and demonstrate the Law of Conservation of Matter.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <p><input type="checkbox"/> Changes of Matter</p> <p>Summative Assessment</p> <p><input type="checkbox"/> Matter Unit Test</p>	<p><input type="checkbox"/> Online Resources/Activities</p> <p><input type="checkbox"/> Discussion</p> <p><input type="checkbox"/> Teacher Demonstration</p> <p><input type="checkbox"/> Lab</p>
Week 7	<p><u>Characteristics of Science</u></p> <p>S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.</p> <p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p>S8CS7. Students will question scientific claims and arguments effectively.</p> <p>S8CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved.</p> <p>S8CS9. Students will understand the features of the process of scientific inquiry.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <p><input type="checkbox"/> Forms of Energy</p> <p><input type="checkbox"/> Energy Transfer</p> <p><input type="checkbox"/> Law of Conservation of Energy</p> <p>Pre-Assessment</p> <p><input type="checkbox"/> Forms of Energy</p>	<p><input type="checkbox"/> Online Resources/Activities</p> <p><input type="checkbox"/> Discussion</p> <p><input type="checkbox"/> Breakfast Energy Trace</p>

	<p><u>Content - Energy</u> S8P2. Students will be familiar with the forms and transformations of energy.</p> <ol style="list-style-type: none"> Explain energy transformation in terms of the Law of Conservation of Energy. Compare and contrast the different forms of mechanical, heat, electrical and magnetic energy and their characteristics. Describe how heat can be transferred through matter by the collision of atoms (conduction) or through space (radiation), in a liquid or gas, currents will facilitate the transfer of heat (convection). 		
Week 8	<p><u>Characteristics of Science</u> S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. S8CS5. Students will use the ideas of systems, model, change, and scale in exploring scientific and technological matters</p> <p><u>Content – Energy</u> S8P2. Students will be familiar with the forms and transformations of energy.</p> <ol style="list-style-type: none"> Explain energy transformation in terms of the Law of Conservation of Energy. Explain the relationship between potential and kinetic energy. 	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Potential Energy <input type="checkbox"/> Kinetic Energy 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Roller Coaster Analysis <input type="checkbox"/> Forms of Energy Mind-Map
Week 9	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p> <p><u>Content – Energy</u> S8P5. Students will recognize characteristics of gravity, electricity, and magnetism as major kinds of forces acting in nature. b.Demonstrate the advantages and disadvantages of series and parallel circuits and how they transfer energy.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Electricity <input type="checkbox"/> Circuit Characteristics <input type="checkbox"/> Transfer of Energy <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Series and Parallel Circuits 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Lab <input type="checkbox"/> Wire A Room (Project Based Learning Activity)

Physical Science – Quarter 2

Date	Standard	Assessment	Additional Information/Extension Activities
Week 10	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Energy</u> S8P5. Students will recognize characteristics of gravity, electricity, and magnetism as major kinds of forces acting in nature. c. Investigate and explain that electric currents and magnets can exert force on each other.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Electricity <input type="checkbox"/> Circuit Characteristics <input type="checkbox"/> Magnetism <p>Summative Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Energy Unit Test 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Lab <input type="checkbox"/> Wire A Room (Project Based Learning Activity)
Week 11	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Wire A Room (Project Based Learning Activity) Continued 	

	<p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p>S8CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved.</p> <p>S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Energy</u></p> <p>S8P5. Students will recognize characteristics of gravity, electricity, and magnetism as major kinds of forces acting in nature.</p> <p>c. Investigate and explain that electric currents and magnets can exert force on each other.</p>		
Week 12	<p><u>Characteristics of Science</u></p> <p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p>S8CS6. Students will communicate scientific ideas and activities clearly.</p> <p>S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Waves</u></p> <p>S8P4. Students will explore the wave nature of sound and electromagnetic radiation.</p> <p>a. Identify the characteristics of electromagnetic and mechanical waves.</p> <p>d. Describe how the behavior of waves is affected by medium (such as air, water, solids)</p> <p>S8P2. Students will be familiar with the forms and transformations of energy.</p> <p>c. Compare and contrast the different forms of energy (heat, light, electricity, mechanical motion, and sound) and their characteristics</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <p><input type="checkbox"/> Wave Characteristics</p> <p><input type="checkbox"/> Wave Parts</p> <p>Pre-Assessment</p> <p><input type="checkbox"/> Waves</p> <p><input type="checkbox"/> Sound</p> <p><input type="checkbox"/> Light</p>	<p><input type="checkbox"/> Online Resources/Activities</p> <p><input type="checkbox"/> Discussion</p> <p><input type="checkbox"/> Demonstration</p> <p><input type="checkbox"/> Drawing and Labeling</p>
Week 13	<p><u>Characteristics of Science</u></p> <p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework,</p>	<p><input type="checkbox"/> Online Resources/Activities</p> <p><input type="checkbox"/> Discussion</p> <p><input type="checkbox"/> Demonstration</p> <p><input type="checkbox"/> Sound Stations</p>

	<p>S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Waves</u> S8P2. Students will be familiar with the forms and transformations of energy. a. Explain energy transformations in terms of the Law of Conservation of Energy. S8P4. Students will explore the wave nature of sound and electromagnetic radiation a. Identify the characteristics of mechanical waves. e. Relate the properties of sound to everyday experiences. f. Diagram the parts of a wave and explain how the parts are affected by changes in amplitude and pitch.</p>	<p>lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sound Characteristics <input type="checkbox"/> Wave Behavior 	<ul style="list-style-type: none"> <input type="checkbox"/> Create an Instrument (Project Based Learning Activity)
<p>Week 14</p>	<p><u>Characteristics of Science</u> S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Waves</u> S8P2. Students will be familiar with the forms and transformations of energy. a. Explain energy transformations in terms of the Law of Conservation of Energy. S8P4. Students will explore the wave nature of sound and electromagnetic radiation a. Identify the characteristics of mechanical waves. e. Relate the properties of sound to everyday experiences. f. Diagram the parts of a wave and explain how the parts are affected by changes in amplitude and pitch.</p>	<p>Create an Instrument (Project Based Learning Activity) Continued</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Create an Instrument (Project Based Learning Activity) Continued

<p>Week 15</p>	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities utilizing safe laboratory procedures. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Waves</u> S8P2. Students will be familiar with the forms and transformations of energy. a. Explain energy transformation in terms of the Law of Conservation of Energy. c. Compare and contrast the different forms of energy (heat, light, electricity, mechanical motion, and sound) and their characteristics. S8P4. Students will explore the wave nature of sound and electromagnetic radiation. a. Identify the characteristics of electromagnetic and mechanical waves. c. Explain how the human eye sees objects and colors in terms of wavelengths.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Light Characteristics <input type="checkbox"/> Electromagnetic Spectrum <input type="checkbox"/> Wave Behavior 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Demonstration
<p>Week 16</p>	<p><u>Characteristics of Science</u> S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Waves</u> S8P4. Students will explore the wave nature of sound and electromagnetic radiation.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Behavior of Light (reflection, refraction, diffraction, absorption) 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Demonstration <input type="checkbox"/> Lab

	b. Describe how the behavior of light is manipulated causing reflection, refraction, diffraction and absorption.		
Week 17	<p><u>Characteristics of Science</u></p> <p>S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.</p> <p>S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p> <p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p><u>Content – Waves</u></p> <p>S8P4. Students will explore the wave nature of sound and electromagnetic radiation.</p> <p>b. Describe how the behavior of light waves is manipulated causing reflection, refraction, diffraction, and absorption.</p> <p>d. Describe how the behavior of waves is affected by medium (such as air, water, solids).</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <p><input type="checkbox"/> Behavior of Light (reflection, refraction, diffraction, absorption)</p> <p>Summative Assessment</p> <p><input type="checkbox"/> Waves Unit Test</p>	<p><input type="checkbox"/> Online Resources/Activities</p> <p><input type="checkbox"/> Discussion</p> <p><input type="checkbox"/> Lab</p>
Week 18	<p><u>All standards covered during semester 1</u></p> <p>a. Matter</p> <p>b. Energy</p> <p>c. Waves</p>	Semester 1 Summative Exam	<p><input type="checkbox"/> Online Resources/Activities</p> <p><input type="checkbox"/> Semester 1 Review</p>

Physical Science - Quarter 3

Date	Standard	Assessment	Additional Information/Extension Activities
Week 22	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p><u>Content – Motion</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. a. Determine the relationship between velocity and acceleration.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion <input type="checkbox"/> Reference Point <input type="checkbox"/> Speed <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Demonstration <input type="checkbox"/> Lab <input type="checkbox"/> Word Problems
Week 23	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. a. Understand the importance of—and keep—honest, clear, and accurate records in science. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion <input type="checkbox"/> Speed <input type="checkbox"/> Velocity <input type="checkbox"/> Acceleration 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Lab <input type="checkbox"/> Scenarios <input type="checkbox"/> Word Problems

	<p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p><u>Content – Motion</u></p> <p>S8P3. Students will investigate relationship between force, mass, and the motion of objects.</p> <p>a. Determine the relationship between velocity and acceleration.</p>		
Week 24	<p><u>Characteristics of Science</u></p> <p>S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.</p> <p>S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p> <p>S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.</p> <p>S8CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities utilizing safe laboratory procedures.</p> <p><u>Content – Motion</u></p> <p>S8P3. Students will investigate relationship between force, mass, and the motion of objects.</p> <p>a. Determine the relationship between velocity and acceleration.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion <input type="checkbox"/> Speed <input type="checkbox"/> Velocity <input type="checkbox"/> Acceleration <input type="checkbox"/> Graphing <p>Summative Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion Unit Test 	Speedy Straw Racers (Project Based Learning Activity)
Week 25	<p><u>Characteristics of Science</u></p> <p>S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework,</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Class Demonstrations

	<p>traits in their own efforts to understand how the world works.</p> <p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p>S8CS6. Students will communicate scientific ideas and activities clearly.</p> <p>S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force</u></p> <p>S8P3. Students will investigate relationship between force, mass, and the motion of objects.</p> <p>a. Determine the relationship between velocity and acceleration.</p> <p>b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion <input type="checkbox"/> Balanced and Unbalanced Forces <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Force 	
<p>Week 26</p>	<p><u>Characteristics of Science</u></p> <p>S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations.</p> <p>S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.</p> <p>S8CS6. Students will communicate scientific ideas and activities clearly.</p> <p>S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force</u></p> <p>S8P3. Students will investigate relationship between force, mass, and the motion of objects.</p> <p>b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mass <input type="checkbox"/> Acceleration <input type="checkbox"/> Inertia <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Inertia <input type="checkbox"/> Friction 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Labs <input type="checkbox"/> Car Scenario

<p>Week 27</p>	<p><u>Characteristics of Science</u> S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mass <input type="checkbox"/> Inertia 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Game <input type="checkbox"/> Demonstrations
<p>Week 28:</p>	<p><u>Characteristics of Science</u> S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gravity <p>Pre-Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weight 	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Gravity Project <input type="checkbox"/> Lab

<p>Week 29</p>	<p><u>Characteristics of Science</u> S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content - Force</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.): <input type="checkbox"/> Newton's Laws of Motion (1st, 2nd, 3rd)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Lab
<p>Week 30</p>	<p><u>Characteristics of Science</u> S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.): <input type="checkbox"/> Newton's Laws of Motion (1st, 2nd, 3rd) <input type="checkbox"/> Air Resistance</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Demonstration <input type="checkbox"/> Newton's Laws Project (Project Based Learning Activity)

Week 31	<p><u>Characteristics of Science</u> S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Summative Assessment</p> <input type="checkbox"/> Force Unit Test Part 1	<input type="checkbox"/> Newton’s Laws Project (Project Based Learning Activity)
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Physical Science - Quarter 4

Date	Standard	Assessment	Additional Information/Extension Activities
Week 32	<p><u>Characteristics of Science</u> S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <input type="checkbox"/> Work <input type="checkbox"/> Input <input type="checkbox"/> Output	<input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Demonstration

	<p><u>Content – Force (Work and Machines)</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<input type="checkbox"/> Machine Pre-Assessment <input type="checkbox"/> Simple Machines	
<p>Week 33</p>	<p><u>Characteristics of Science</u> S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force (Work and Machines)</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.): <input type="checkbox"/> Work <input checked="" type="checkbox"/> Machines</p>	<input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion <input type="checkbox"/> Machines Book Project <input type="checkbox"/> Demonstration
<p>Week 34</p>	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. S8CS4. Students will use tools and</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.): <input checked="" type="checkbox"/> Simple Machines</p> <p>Summative Assessment Life Is Simple With Simple Machines Lab</p>	<input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Discussion

	<p>instruments for observing, measuring, and manipulating equipment and materials in scientific activities utilizing safe laboratory procedures.</p> <p><u>Content – Force (Work and Machines)</u> S8P3. Students will investigate relationship between force, mass, and the motion of objects. c. Demonstrate the effect of simple machines (lever, inclined plane, pulley, wedge, screw, wheel and axle) on work.</p>		
<p>Week 35</p>	<p><u>Characteristics of Science</u> S8CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. S8CS2. Students will use standard safety practices for all classroom laboratory and field investigations. S8CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities utilizing safe laboratory procedures S8CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters. S8CS6. Students will communicate scientific ideas and activities clearly. S8CS9. Students will understand the features of the process of scientific inquiry.</p> <p><u>Content – Force (Work and Machines)</u> S8P2. Students will be familiar with the forms and transformations of energy. a. Explain energy transformation in terms of the Law of Conservation of Energy.</p>	<p>Formative Assessment (throughout the unit; may include writing assignments, quizzes, exit tickets, homework, lab reports, graphic organizers, etc.):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Force <input type="checkbox"/> Motion <input type="checkbox"/> Work <input type="checkbox"/> Machines 	<p>Machines are Marvelous (Project Based Learning Activity)</p>

	<p>S8P3. Students will investigate relationship between force, mass, and the motion of objects.</p> <p>b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia and friction.</p> <p>c. Demonstrate the effect of simple machines (lever, inclined plane, pulley, wedge, screw, and wheel and axle) on work.</p>		
Week 36	<p><u>All standards covered during semester 2</u></p> <p>a. <i>Force</i></p> <p>b. <i>Motion</i></p> <p>c. <i>Work and Machines</i></p>	Semester 2 Summative Exam	<input type="checkbox"/> Online Resources/Activities <input type="checkbox"/> Semester 2 Review