

Period	Standards and Performance Expectations	Suggested Activities and Resources 3D Dimensions	Critical Vocabulary	Assessments
<p>Unit 1- Science Skills</p> <p>Week 1- What is Science?</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Scientists are curious and approach problems in a specific way.</p> <p><u>Activities</u> Intro to Science activity Vocabulary Bill Nye video</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Science ● Technology ● Chemistry ● Physics ● Geology ● Astronomy ● Biology 	<p>Questions over Bill Nye Video</p>

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<p>Unit 1- Science Skills</p> <p>Week 2 Using the Scientific Approach and Measurements</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Scientists are curious and approach problems in a specific way.</p> <p><u>Activities</u> Notes Webquest - Scientific Method Lab - Intro to Lab Equipment</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Scientific method ● Observation ● Hypothesis ● Manipulated variable ● Responding variable ● Controlled experiment ● Scientific theory ● Scientific law ● Model ● Scientific notation ● Length ● Mass ● Volume ● Density ● Conversion factor ● Precision ● Significant figures ● Accuracy ● Thermometer 	<p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p> <p>Lab questions</p>

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<p>Unit 1- Science Skills</p> <p>Week 3- Presenting Scientific Data</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Scientists are curious and approach problems in a specific way.</p> <p><u>Activities</u> Notes Review</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Slope ● Direct proportion ● Inverse proportion 	<p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p> <p>Chapter review</p> <p>Unit 1 Test</p>

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<p>Unit 2- Properties of Matter</p> <p>Week 4- Classifying Matter and Physical Properties</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Matter is all around us and it can be classified into many different categories.</p> <p><u>Activities</u> Vocabulary Density Lab Simulation Notes Physical vs Chemical Lab Google Slide Report</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Pure Substance ● Element ● Atom ● Compound ● Heterogeneous Mixture ● Homogeneous mixture ● Solution ● Suspension ● Colloid ● Physical properties ● Viscosity ● Conductivity ● Malleability ● Melting point ● Boiling point ● Filtration ● Distillation ● Physical change 	<p>Lab Report</p> <p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p>

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<p>Unit 2- Properties of Matter</p> <p>Week 5- Chemical Properties</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Matter is all around us and it can be classified into many different categories.</p> <p><u>Activities</u> Notes</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Chemical Property ● Flammability ● Reactivity ● Chemical change ● precipitate 	<p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p> <p>Chapter review</p> <p>Unit 2 Test</p>

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<p>Unit 3- States of Matter</p> <p>Week 6- Solids, Liquids and Gases and the Gas Laws</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Matter exists in three states of matter on earth, Solid, Liquid and Gas.</p> <p><u>Activities</u> States of Matter Webquest Notes Gas Lab Gas Lab Simulation</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Solid ● Liquid ● Gas ● Kinetic energy ● Pressure ● Absolute zero ● Charles’ law ● Boyle’s law 	<p>Lab Report</p> <p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p>

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<p>Unit 3- States of Matter</p> <p>Week 7- Phase Changes</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Matter exists in three states of matter on earth, Solid, Liquid and Gas.</p> <p><u>Activities</u> Solid Liquid Gas Lab Simulation Notes Solutions Lab Bill Nye</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Phase change ● Endothermic ● Heat of fusion ● Exothermic ● Vaporization ● Heat of vaporization ● Evaporation ● Vapor pressure ● Condensation ● Sublimation ● deposition 	<p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p> <p>Lab Report</p> <p>Chapter review</p> <p>Unit 3 Test</p>

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<p>Unit 4- Atomic Structure</p> <p>Week 8- Studying Atoms and the structure of atoms</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Matter is made of Atoms which are the building blocks and our model of an atom has evolved over time.</p> <p><u>Activities</u> Vocabulary Notes Build an Atom lab Simulation Bill Nye</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Proton ● Electron ● Neutron ● Atomic number ● Nucleus ● Mass number ● isotopes 	<p>Lab Report</p> <p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p> <p>Questions over Bill Nye Video</p>

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<p>Unit 4- Atomic Structure</p> <p>Week 9- Modern Atomic Theory</p>	<p>Key summary</p> <p>HS-ICP1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-ICP1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.</p>	<p><u>Phenomenon</u> Matter is made of Atoms which are the building blocks and our model of an atom has evolved over time.</p> <p><u>Activities</u> Notes Atom Webquest</p> <p><u>DCI (Disciplinary Core Ideas)</u> PS1.A: Structure and Properties of Matter</p> <p><u>SEPS (Science and Engineering Practices)</u> SEP.2: Developing and Using Models SEP.3: Planning and Carrying Out Investigations SEP.6: Constructing Explanations and Designing Solutions</p> <p><u>CCC (Crosscutting Concepts)</u> CC.1: Patterns CC.5: Energy and Matter CC 6. Structure and Function CC 4. Systems and System Models CC 7. Stability and Change</p>	<ul style="list-style-type: none"> ● Energy levels ● Electron cloud ● Orbital ● Electron configuration ● Ground state 	<p>Section Assessment Questions in the book.</p> <p>Guided Reading Worksheets</p> <p>Chapter review</p> <p>Unit 4 Test</p>