

CURRICULUM GUIDE  
Seventh Grade Science  
First Six Weeks

Unit of Study—Nature of Science (Obj. 1)					
TEKS #	Knowledge and Skill TEK	Student Expectation	Vocabulary	Tools	Instructional/Assessment Resources
7.1 7.2 7.3 7.4		<p>Identify and demonstrate appropriate use of scientific processes including the scientific method, laboratory equipment, and measurement.</p> <p>Describe general properties of matter, length, mass, volume, density, weight, and temperature.</p> <p>Formulate observations and inferences, based on the scientific processes.</p> <p>Construct data tables, and interpret graphs and data.</p>	<p>Test tube Experiment Bar Graph Line Graph Hypothesis Conclusion Observation Inference Safety Goggles Scientific Method Measurement Accuracy Data Analyze Graduated Cylinder Laboratory Safety Variables Experiment Flask Thermometer</p>		<ol style="list-style-type: none"> <li>1. Safety &amp; Equipment</li> <li>2. Test</li> <li>3. Tour of Lab</li> <li>4. Begin Scientific Method</li> <li>5. Review &amp; discuss method</li> <li>6. Observation and infer</li> <li>7. Graphing Notes</li> <li>8. Discuss variables, Titles, Axis, Titles, Key, ETC</li> <li>9. Discuss Graphing Project</li> <li>10. Selection of Tier and subject</li> <li>11. Discuss Data Parameters</li> <li>12. Practice Graphing, gathering data, determining which graph, creating graph</li> <li>13. Give study guide</li> <li>14. Graphing Science Processes Test</li> <li>15. Computerized test</li> </ol>

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		<p>Identify and demonstrate appropriate use of scientific processes including the scientific method, laboratory equipment, and measurement.</p> <p>Describe general properties of matter, length, mass, volume, density, weight, and temperature.</p> <p>Formulate observations and inferences, based on the scientific processes.</p> <p>Construct data tables, and interpret graphs and data.</p>	<p>Temperature Volume Density Mass Weight Test Tube Holder Independent Variable Control Dependent Variable X-Axis Y-Axis Variable</p>		
Structure an of Properties of Matter (Obj. 3)					
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(7.7) ABC	<b>7.7Science concepts.</b> The student knows that substances have physical and chemical properties.	(A) <b>identify and demonstrate</b> everyday examples of chemical phenomena such as rusting and tarnishing of metals and burning of wood;  (B) <b>describe</b> physical properties of elements and <del>identify how they are used to position an element on the periodic table;</del> and  (C) <b>Recognize</b> that compounds are composed of elements.	Atoms Protons Neutrons Electrons		1. Discuss chapter 3sec 1 2. Atom activity 3. CHpter 3 sec 2 and notes
Structure and Properties of Matter (obj. 3)			Electronic Shell Mixture		4. Class discuss periodic table
7.3C	<b>(7.3) Scientific processes.</b> The student uses critical thinking and scientific problem solving to make informed decisions.	(C) <b>Represent</b> the natural world using models and identify their limitations. (E) <b>Connect</b> Grade 7 science concepts with the history of science and contributions of scientists.	Solution Compound		5. Section 3 demo
7.4A	<b>(7.4) Scientific processes.</b> The student knows how to use tools and methods to conduct science inquiry.	(A) <b>collect, analyze, and record</b> information to explain a phenomenon using tools including beakers, Petri dishes, meter sticks, graduated cylinders, weather instruments, hot plates, dissecting equipment, test tubes, safety goggles, spring scales, balances, microscopes, telescopes, thermometers, calculators, field equipment, computers, computer probes, timing devices, magnets and compasses.	Physical Properties Chemical Properties Chemical Change Physical Change Periodic Table		6. Foldable chp 3 7. mixture and compound activity
7.4B			Metals Nonmetals		8. chp4sect1notes and class discuss
7.7 B	<b>7.7Science concepts.</b> The student knows that substances have physical and chemical properties.	(B) <b>Collect and analyze information</b> to recognize patterns such as rates of change.	Procedures Matter		9. student notes n foldable
7.7ABC	<b>7.7Science concepts.</b> The student knows that substances have physical and chemical properties.	(A) <b>identify and demonstrate</b> everyday examples of chemical phenomena such as rusting and tarnishing of metals and burning of wood; (B) <b>Describe</b> physical properties of elements and identify how they are used to position an element on the periodic table. (C) <b>Recognize</b> that compounds are composed of elements.			10. prep for comparison activity pg111 in book
7.4A	<b>(7.4) Scientific processes.</b> The student knows how to use tools and methods to conduct science inquiry.	(A) <b>identify and demonstrate</b> everyday examples of chemical phenomena such as rusting and tarnishing of metals and burning of wood;			11. activity pg 111
					12. chp 4 sec 2 notes and class discuss
					13. demo of physical and chemical change
					14. chp4sec 3 class discuss and notes
					15. prep for activity
					16. periodic project due
					17. chem. Vs phys change
					18. complete and grade study guide in class
					19. test over chpt 3 and 4-computerized
					20. lab exam-computerized
					21.

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7.2ABDE	<p><b>(7.2) Scientific processes.</b> The student uses scientific inquiry methods during field and laboratory investigations.</p>	<p>(A) <b>plan and implement investigative procedures</b> including asking questions, formulating testable hypotheses, and selecting and using equipment and technology;            (B) <b>collect data</b> by observing and measuring;            (D) <b>communicate valid conclusions</b>;            (E) <b>Construct graphs, tables, maps, and charts</b> using tools including computers to organize, examine and evaluate information.</p>			