

Eight Grade Science Curriculum Map

Quarter Chemistry	Month	Content	Skills	State Standards	Assessments	Math Integration
1	September	Scientific Inquiry Unit 1 Chapter 1	<ul style="list-style-type: none"> <li>*Examine the Scientific Method</li> <li>*Demonstrate ways to record and use data using technology</li> <li>*Demonstrate use of laboratory equipment</li> <li>*Use appropriate measurement methods</li> <li>*Construct and interpret charts, graphs, and tables</li> </ul>	11.A.3a- 11.B.3f, 13.A.3a, 13.A.3c	<ul style="list-style-type: none"> <li>*Worksheets</li> <li>*Notebook</li> <li>*Quizzes</li> <li>*Chapter Test</li> </ul>	<ul style="list-style-type: none"> <li>*Evaluating and simplifying exponential expressions using the metric system. 6.8.11, 6.8.13, 6.8.26, 8.8.02</li> <li>*Integers and four operations using metric system. 6.8.14, 6.8.15, 6.8.20, 6.8.26, 9.8.13</li> <li>*Metric system conversions</li> <li>*Problem solving and rounding with decimals using measurement, mass, density, and volume. 6.8.08, 6.8.16</li> <li>*Scientific Notation using metric system. 6.8.05, 6.8.21</li> </ul>

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	October	Technology	*Identify important contributions to science and technology that have been made by individuals/groups from various nations at various times *Provide examples of careers that use scientific and technological knowledge and skills	13.B.3a 13.B.3c	*Research Notes *Teacher Rubric for Research Paper	
		Structure of Matter Unit 12 Chapter 2 and 3	*Analyze physical and chemical properties of the elements	12.C.3b	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests *Review Sheets *Study Guide *Quarter 1 Assessment Test	*Problem solving with decimals using atomic mass. 6.8.08, 6.8.16 *Exponent properties using chemical formula writing. 6.8.11, 6.8.16 *Problem solving with integers using chemical formulas. 6.8.08, 6.8.16 *Integers and four operations using chemical formulas. 6.8.14, 6.8.15, 6.8.20, 6.8.26, 9.8.13 *Scientific Notation using metric system. 6.8.05, 6.8.21

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	<b>November</b>	Chemical Changes Unit 16 and 17 Chapter 7 and 8	*Use chemical equations to represent chemical changes *Use chemical equations to balance chemical reactions	12.C.3b	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	*Solving two step inequalities by balancing chemical equations, singles, and double replacement reactions. 8.8.04, 8.8.05 *Problem solving with integers by balancing equations, oxidation, reduction, and synthesis reactions. 6.8.08, 6.8.16 *Integers and four operations using chemical equations. 6.8.14, 6.8.15, 6.8.20, 6.8.26, 9.8.13

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2	December	Patterns of Matter Unit 17 and 19 Chapter 8 and 9	*Explain physical change of matter	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	*Solving two step inequalities by single and double replacement reactions. 8.8.04, 8.8.05 *Solving two step equations with four operations. 8.8.04, 8.8.05, 8.8.16 *Solving equations with variables on both sides. 8.8.04, 8.8.05, 8.8.16

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	January	Interactions of Matter Unit 17 and 19 Chapter 8 and 9	*Explain interaction of energy when chemicals combine	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests *Review Sheets *Study Guide *Quarter 2 Assessment Test	*Ratios using solutions. 6.8.07 *Rates using solutions and dissolving solutions. 6.8.07, 7.8.02, 7.8.09 *Proportions using solutions. 7.8.08, 7.8.10, 8.8.15 *Angle and line relationships using the pull of gravity to center of the Earth. 9.8.01
3		Force Unit 2 Chapter 13	*Identify the various forces present in the universe and the interrelationships with matter	12.D.3a, 12.D.3b	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	

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	February	Motion Unit 4 Chapter 12	*Identify forces affecting motion and moving bodies	12.C.3a, 12.D.3a, 12.D.3b, 12.F.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	*Problem solving with mixed numbers, decimals, and integers by speed, velocity, acceleration, and deceleration. 6.8.08, 6.8.16 *Variables and evaluating expressions with speed, velocity, acceleration, deceleration, measuring work and, power. 8.8.07, 8.8.17, 8.8.18 *Calculate surface area on an inclined plane. 7.8.06, 7.8.07
		Energy, Work and Machines Unit 3 and 5 Chapter 15,16, and 17	*Investigate the relationships between force, work, energy, power, and efficiency using simple machines *Describe the properties, behavior, and uses of thermal energy	12.D.3b, 12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	

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	March	Fluids Unit 6 Chapter 17 and 18	*Describe the properties of fluids and their behavior under pressure and temperature changes	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests *Review Sheets *Study Guide *Quarter 3 Assessment Test	*Probability as ratios using temperature and different fluids. 10.8.07, 10.8.11, 10.8.12 *Compute probability of repeated trials of freezing/boiling points of different fluids. 10.8.08 *Probability of simple experiments with temperature and fluids. 10.8.08 *Independent events with temperature and fluids. 10.8.10 *Counting principle experimenting with temperature and fluids. 10.8.14
4		Heat Unit 6 Chapter 17 and 18	*Explain and apply the gas laws	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	

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	April	Gravity Unit 13 Chapter 14	*Explain specific gravity and buoyancy	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Test	*Mean, median, mode and range of densities of common substances and specific gravity. 10.8.05 *Calculate surface area and volume by density. 7.8.06, 7.8.07 *Read and interpret a variety of graphs, charts, and tables. 10.8.03, 10.8.04 *Transformations (reflections and refractions) using angles of waves. 9.8.09 *Angle Measures using wave reflection and refraction. 7.8.01
		Waves Unit 7 Chapter 21	*Identify the characteristics of different types of waves	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Test	

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4	May	Light Unit 9 Chapter 23 and 24	*Explain the properties and behavior of light in optics in the universe	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	*Problem solving with speed and distance using light waves. 7.8.03 *Transformations using light waves. 9.8.09 *Angle measures using reflection and refraction of light waves. 7.8.01
		Electricity and Magnetism Unit 10 and 11 Chapter 19 and 20	*Investigate electromagnetism, electricity, and basic electronics	12.C.3a	*Worksheets *Notebook *Lab Work *Quizzes *Chapter Tests	