	Week	Unit	Topics by week	Lab or simulation
Quarter 1	1	Unit 1: Atomic Structure	Investigation 1: Atomic Structure Experience 1: Paticle Nature of Matter	EP: What is sugar made of? OEIL: Elements- The Building Blocks of Matter
	2		Inestigation 1: Atomic Structure Experience 2: Modeling Atoms	OEIL: Bean Bag Isotopes SIM: PhET- Build an Atom SIM: PhET- Isotopes & Atomic Mass
	3		Investigation 1: Atomic Structure Experience 3: Emission Spectra & Bohr Model	EP:How do we know water is present on Mars. AIL: Evaluate Atomic Spectra
	4		Investigation 1: Atomic Structure Experience 4: Modern Atomic Theory Experience 5: Electron in Atoms	EP: How do guests decide where to stay in a hotel? (e- configuration) OEIL: Model Electon Configuration
	5	Finish Unit 1: Atomic Structure Begin Unit 2: The Periodic Table	Investigation 2: The Periodic Table Experience 1: The Periodic Table: An Overview	PBA: Evaluate Atomic Structure with Flame test EP: Coin Categories: How can categorizing and arranging objects help us make predictions about their properties?
	6	Unit 2: The Periodic Table	Investigation 2: The Periodic Table Experience 2: the Periodic Table and Atomic Structure	EP: What's so special about silicon? AIL: Elemental metals, nonmetals, and metalloids Interactivity: Periodic Properties
	7		Investigation 2: The Periodic Table Experience 3:Periodic Trends	EP: What can periodic trends tell us? OEIL: Periodic trends and properties VL: Predict Reactivity using periodic trends
	8	Unit 3: Chemical Bonding	Finish Investigation 2: The Periodic Table Investigation 3: Chemical Bonding Experience 1: Ionic Bonds	EP: What happens when you mix an explosive metal with a poisonous gas. OEIL: Characteristics of Ionic Bonds Interactivity: Ions and Electroplating
	9		Finish: Investigation 3: Chemical Bonding Experience 1: Ionic Bonds	OEIL: Investigate Metallic Bonds
		Fall Break		
Quarter 2	10	Unit 3: Chemical Bonding	Finish Investigation 3, Experience 2 Investigation 3: Chemical Bonds Experience 3: Covalent Bonds	VR: Chemical Bonding EP: How are covalent comounds different from ionic? OEIL: Investigate Covalent Bonds PhET: Molecular Polarity
	11		Finish Investigation 3: Chemical Bonds Experience 3: Covalent Bonds Start Investigation 3: Covalent Bonds Experenience 4: Intermolecular Forces	PhET: Molecular Shapes EP: Why does hand sanitizer evaporate much more quickly than water? OEIL: Intermolecular Forces
	12		Finish Investigation 3: Chemical Bonds Experience 4: Intermolecular Forces	OEIL: Intermolecular Forces VL: Intermolecular Forces in Liquids PBA: Qualitative Analysis and Chemical Bonding
	13	Unit 4: Physical Properties of Materials	Assess Investigation 3: Chemical Bonds Begin Investigation 4: Physical Properties of Materials Experience 1: States of Matter	EP: Why do solid water and solid carbon dioxide behave so differently? OEIL: Correlate Materials and Bond Type VL: States of Matter
	14		Finish Investigation 4: Understanding Chemical Reactions Experience 1: States of Matter Begin Investigation 4: Understanding Chemical Reactions Experience 3: Comparing Ionic and Molecular Compounds	PhET: States of Matter Basics VR: Physical Properties of Materials EP: What have you noticed about crystals? OEIL: Melt Ionic and Covalent Compounds
	15		Finish Investigation 4: Physical Properties of Materials Experience 3: Comparing Ionic and Molecular Compounds	VL: Tough Tools
	16		Investigation 4: Physical Properties of Materials Experience 4: Comparing metals and nonmetals	EP: How does aluminum foil compare with plastic wrap? OEIL: Modeling Metals, Ceramics, and Polymers
	17		Investigation 4: Physical Properties of Materials Experience 5:Water and Aqueous Systems	EP: Can you make water wetter? OEIL: Invetigate Surface Tension Unit Assessment
	18		Assessment Investigation 4 Final Exam review	
	19		Final Exams	
		Winter Break		
	20	Unit 5: Chemical Quantities	Investigation 5: Chemical Quatities Experience 1: The Mole Concept	EP: How can you measure matter? OEIL: Describe Small-Scale Matter Using the Mole
	21		Finish Investigation 5, Experience 1 Investigation 5: Chemical Quantities Experience 2: Molar Relationships	VRE: Chemical Quantities EP: Can you inflate a balloon with vinegar and baking soda? OEIL: Mole Ratios Interactivity: Mole Road Map

Quarter 3	22	Finish Unit 5: Chemical Quantities Begin Unit 6: Chemical Reactions	Assessment Investigation 5 Begin Investigation 6: Chemical Reactions Experience 1: Modeling Chenical Reactions	EP: Does the number of atoms change in a chemical reaction? OEIL: Evaluate Chemical Reactions
	23	Unit 6: Chemical Reactions	Finish Investigation 6, Experience 1 Begin Investigation 6: Chemical Reactions Experience 2: Predicting Outcomes of Chemical Reactions	PhET: Balancing Equations Demo: Steel Wool (Intro to AD: Analyzing Chemical reactions EP: What is the outcome of a decomposition reaction? OEIL: Types of Chemical reactions
	24		Finish Investigation 6: Chemical Reactions Experience 2: Predicting Outcomes of Chemical Reactions	OEIL: Types of Chemical reactions VR: Chemical Reactions VL: Reactivity of Metals
	25		Begin Investigation 6: Chemical Reactions Experinece 3: Reactions in Aqueous Solution	EP: How do substances combine to make new substances in our everyday life? OEIL: Predict Chemical Reactions Interactivity: Cation Meet Anion PBA: Identifying Evidence of a Chemical reaction
	26	Finish Unit 6: Chemical Reactions Begin Unit 9: The Behavior of Gases	Unit 6 Assessment Investigation 9: The Behavior of Gases Experieince 1: Properties of Gases	EP: Can gas make an object move? OEIL: Compressibility
	27	Unit 9: The Behavior of Gases	Finish Investigation 9: The Behavior of Gases Experience 1: Properties of Gases Begin Investigation 9: The Behavior of Gases Experience 2: The Gas Laws	VR: The Behavior of Gases EP: How can you blow up a ballon inside a bottle without blowing air into it? OEIL: Relationship between gas variables
	28		Finish Investigation 9: The Behavior of Gases Experience 2: The Gas Laws Begin Investigation 9: The Behavior of Gases Experience 3: Ideal Gas Law	EP: What causes a marshmallow to shrink and expand? OEIL: Ideal Gas Law **VL: Gas Behavior in Popping Candy
	29		Finish Investigation 9: The Behavior of Gases Experience 3: Ideal Gas Law	PheT: Gas Properties
		Spring Break		
Quarter 4	30	Unit 9: The Behavior of Gases	Investigation 9: The Behavior of Gases Experience 4: Gases in the Earth's Atmosphere	EP: Spreading Color Change GIL: Gas Diffusion Interactivity: Going for a Hike
	31	Finish Unit 9: The Behavior of Gases Unit 10: Reaction Rates and Equilibrium	Asses Investigation 9: The Behavior of Gases Begin Investigation 12: Reaction Rates and Equilibrium Experience 1: Rates of Reactions	EP: How can you make a reaction go faster? OEIL: Reaction Rates: Iodine Clock
	32	Unit 10: Reaction Rates and Equilibrium	Finish Investigation 12: Reaction Rates and Equilibrium Experience 1: Rates of Reactions Begin Investigation 12: Reaction Rates and Equilibrium Experience 2: The Process of Chemical Reactions	VRE: Reaction Rates EP: What makes a match catch fire? OEIL: Collision Theory Interactivity: Reaction Rates and Activation Energy
	33		Investigation 12: Reaction Rates and Equilibrium Experience 3: Reversible Reactions Begin Investigation 12: Reaction Rates and Equilibrium Experience 4: Free Energy and Entropy	EP: What is happening during equilibrium? OEIL: Explore Chemical Equilibrium VL: Equilibrium Shifting EP: Entropy Change or ICE GIL: Supersaturation and Thermodynamics
	34		Finish Investigation 12: Reaction Rates and Equilibrium Experience 4: Free Energy and Entropy	
	35	Finish Unit 10: Reaction Rates and Equilibrium Begin Unit 11: Nuclear Processes	Asses Investigation 12: Reaction Rates and Equilbrium Begin Investigation 17: Nuclear Processes Experience 1: Radioactivity and Half Lives	EP: Making Radiation Visible OEIL: Radioactive Decay VL: Geological Variation and Radon Levels
	36	Unit 11: Nuclear Processes	Finish Investigation 17 , Experience 1 Being Investigation 17: Nuclear Processes Experience 2: Fission and Fusion	EP: Making Gold from other elements OEIL: Nucealr Energy Interactivity: Comparing Nuclear and Chemical Reactions VRE: Nuclear Processes
	37		Investigation 17: Nuclear Processes Experience 3: Nuclear Technologies Final Exam Review	EP: Rad Risks GIL: Nuclear Radiation and Shielding
	38		Final Exam	

Legend	EP: Everyday Phenomenon
	GIL: Guided Inquiry Lab
	AIL: Advanced Inquiry Lab
	OEIL: Open Ended Inquiry Lab
	SIM: Simulation/Virtual Lab
	PBA: Problem Based Assessment
	VL: Virtual Lab
	VR: Virtual Reality Experience
	IP: Investigative Phenomena