

QUARTER #1	
TOPIC	
Qualitative-Quantitative Observations	
Inferring-Predicting	
Physical Science	
Scientific Inquiry Method	
Controlled Experiment	
Manipulated-Responding Variable	
Graphing	
Scientific Models, Theories, Laws	
Laboratory Safety-MSDS Sheets	
Technology-Design Process	
Science Ethics: Global Warming	
Matter	
Chemical-Physical Properties	
Elements – Compounds-Mixtures	
Measuring Mass, Weight, Length, Volume	
Density	
Physical-Chemical Changes	
Law of Conservation of Mass-Energy	
Energy	
Temperature	
Thermal Energy	
Exothermic-Endothermic	
Kinetic-Potential Energy	
Chemical Energy	
Electromagnetic Energy	
Electrical Energy	
Electrolysis	

QUARTER #2	
TOPIC	
States of Matter	
Amorphous-Crystalline Solids	
Surface Tension	
Viscosity	
Changes of State with Change of State Energy	
Gas Pressure-Volume-Temperature Energy	
Gas Laws	
Development of Atomic Theory and Atomic Mass	
Atomic Particles-Atomic Number-Atomic Mass	
Isotopes & Bohr Models	
Development & Organization of Periodic Table	
Metallic-Metalloid-Nonmetal-Noble Gas Propellants	
Nuclear Reactions-Fission-Fusion	
Radioactivity-alpha-Beta-Gamma Radiation &	
Valence Electrons and Chemical Bonding	
Electron Dot Diagrams	
Ionic-Covalent Bonding	
Chemical Reactions	
Chemical Equations	
Conservation of Mass-Energy	
Types of Chemical Reactions	
Energy & rates of Chemical Reactions	
Exothermic-Endothermic	
Catalyst-Enzymes-Inhibitors	
Acids-Bases and Solutions	

QUARTER #3	
TOPIC	
Finish Chemical Reactions	
Relative Motion	
Reference Points	
Speed-Velocity-Acceleration	
Graphing Motion	
Net Forces	
Balanced-Unbalanced Forces	
Static-Sliding-Rolling-Fluid Friction	
Gravity-Weight-Mass	
Free Fall – Air Resistance	
Projectile Motion	
Newton’s First-Second-Third Laws of Motion	
Momentum	
Conservation of Momentum	
Forces in Fluids	
Pressure-Buoyancy Archimedes’s Principles	
Pascal’s Principle – Bernoulli’s Principle	
Work-Power-Energy	
Kinetic-Potential Energy	
Forms of Energy	
Energy Transformations	
Conservation of Energy	

QUARTER #4	
TOPIC	
Temperature-Thermal Energy-Heat	
Specific Heat	
Conduction-Convection-Radiation	
Thermal Energy & Changes of State	
Thermal Expansion	
Heat Engines & Cooling Systems	
Waves & Energy	
Mechanical-Electromagnetic Waves	
Wave Amplitude – Wavelength-Frequency Speed	
Wave Reflection-Refraction-Diffraction-Interference	
Standing Waves & Resonance	
Seismic Waves & Tsunamis	
Sound Waves	
Loudness-Intensity	
Pitch-Frequency	
The Doppler Effect & Shock Waves	
Music-Sound-Acoustics	
Electromagnetic Waves	
Electromagnetic Spectrum	