Science Pacing Guide Grade 8

First Nine Weeks		Second Nine Weeks	
Unit/Pacing	Topics	Unit/Pacing	Topics
1.1 Properties of Matter 3 weeks	Measuring mass volume and temperature Physical and chemical properties Calculate density Compare densities Physical and chemical changes	2.1 Periodic Table of the Elements 4 weeks	Investigate properties of elements Organization of the periodic table Properties of groups Metals, nonmetals and metalloids Predicting properties
1.2 Phases of matter 2 weeks	Effects on density and state Pressure, volume and temperature of gases Particle movements Chemical composition of the atmosphere	2.2 Chemical reactions 5 weeks	Models of chemical reactions Producing new substances Chemical formulas Chemical equations Balanced chemical equations Rates of reactions
1.3 Elements, Compounds and Mixtures 3 weeks	Types of mixtures Properties of compounds and elements Chemical symbols and formulas Atoms and molecules Separating components of mixtures Classifying mixtures		
Third Nine Weeks		**Fourth Nine Weeks**	
Unit/Pacing	Topics	Unit/Pacing	Topics
3.1 Acids and Bases 3 weeks	Creating a classification system Using an indicator Properties and uses of acids and bases pH scale Mixing and acid with a base Word equation for a neutralization reaction	4.1 Electromagnetism 5 weeks	Earth's magnetic field Effects of Earth's magnetic field Strength of an electromagnet Testing the performance of an electromagnet Relationship between electricity and magnetism
3.2 Adapting to the Environment 4 weeks	Structural, behavioral and physiological adaptations Survival value of an adaptation Fossils Predicting survival Genetic variation, natural selection and adaptation Earth's diversity Effects on biodiversity	4.2 Gravity 4 weeks	Effects of mass and distance Mass and weight Role of gravity in the motion of objects Patterns of motion in the universe
3.3 Classification 2 weeks	Sorting criteria Biological classification Classification key Identifying an unknown organism Usefulness of systems and keys		