Course/Subject: **Science** GradeLevel/Building: **8/Middle School** **4/00**

UNIT	SKILLS	TYPE OF ASSESSMENT USED
Chapter 1 The Nature of Science	• Scientific method • Observing and inferring • Theories and law	• Manipulative skills • Lab performances • Chapter test: - multiple choice - short answer - listing - summarizing - identifying
Chapter 2 Measurement	• Lab safety • Units and standards • Accuracy and precision • Measuring length, mass and volume • Density • Time and temperature	• Manipulative skills • Lab performances • Mathematics computation using formulas and labels of units • Chapter test: - multiple choice - measuring - mathematical computation - manipulative skills
Chapter 8 Solids, Liquids and Gases	• The properties of and identifying the four states of matter • Kinetic Theory of Matter • Thermal expansion • Six properties of air • Pressure • Archimedes' Principle (buoyancy) • Pascal's Principle (pressure) • Bernoulli's Principle (pressure) • Changing states of matter • Heat of fusion and heat of vaporization • Measuring and converting temperature • Graphing	• Manipulative skills • Lab performances • Mathematical computation using formulas • Journals • Chapter test: - multiple choice

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UNIT	SKILLS	TYPE OF ASSESSMENT USED
Chapter 9 Classification of Matter	• Substances: elements and compounds • Mixtures: homogeneous and heterogeneous • Solutions, suspension and colloids • Properties of matter: physical and chemical • Change of matter: physical and chemical	• Lab performances • Journals • Chapter test: - multiple choice - mini essay - listing - identifying - fill-in-the-blank
Chapter 10 Atomic Structure and the Periodic Table	• Elements and their chemical symbols • Models of the atom • Parts of the atom • Electron cloud • Atomic mass • Isotopes • Structure of the periodic table • Groups of the elements • Periods of the elements • Chemical activity	• Drawing atomic models • Report/project • Creating an element square • Chapter test: - multiple choice - atomic model diagrams - identifying - true/false - math computation - mini essay
Chapter 11 Chemical Bonds	• Electron loss and gain (ionic bonds) • Electron sharing (covalent bonds)	
Chapter 5 Energy	• Kinetic energy • Potential energy • Mechanical energy • Work & energy transfer • Energy conservation • Temperature • TE • Heat	• Lab performances • Manipulative skills • Chapter test - true/false - short answer - drawing/free response - identifying - fill in the blank - mathematical computation
Chapter 6 Heat in Our World	• Conduction, convection, radiation • R-Value - preventing • Heat loss	• Lab performances • Chapter test - short answer/free response - mathematical computation

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UNIT	SKILLS	TYPE OF ASSESSMENT USED
Chapter 3 Motion	• Speed and velocity • Acceleration • Forces • Friction • Inertia • Newton's 1st Law of Motion • Mass, gravity and weight	• Lab performances • Mathematical computation using formulas and labels of units • Chapter test: - multiple choice - mathematical computation - short answer
Chapter 4 The Laws of Motion	• Newton's 2nd Law of Motion • Falling objects • Projectiles • Circular motion: centrifugal force and centripetal force • Newton's 3rd Law of Motion • Momentum	• Mathematical computation using formulas and labels of units • Sea Breeze field trip • Journals • Chapter test: - multiple choice - fill-in-the-blank - mathematical - computation - open/free response
Daily, Monthly and Seasonal Changes on Earth	• Moons, planets, asteroids, comets in our solar system • Our sun • Reasons for identifying the phases of the moon • Predictable motions within the solar system • Gravity in our solar system • Reasons for and identifying the seasons • Rotation vs. revolution	• Lab performances • Chapter test