Science 9 - Unit 1—Chemistry
Unit Outline

Topic	Activity
Class Procedures	School and Classroom Expectations and Marking System
Lab Safety	Rules for Using the Lab Warning Symbols – p. xii SP. (Hazard Flash Cards) "Where Are They?" Activity
Classifying Matter and Changes in Matter	Power Point on Classification of Matter (Matter Flash Cards) Class Demonstration of some types of Matter - Diagram on p. 23 SP. Class Demonstration of Physical and Chemical Changes Power Point on Physical and Chemical Changes. Physical/Chemical Changes Home Assignment Activity 2B—Matter & It's Changes -Do Background Information -Do Forms of Matter-Identification (Use data table in Hand-Out) -Do Procedures 1-10 on p. 24-25 SP.(Use Data Table in Hand-Out) -Complete conclusion questions Matter Classification Game Do Review 2.1 Questions 1,4 & 5 (point form) p. 27 SP.
Chemical Reactions	Class introduction to chemical reactions, reactants and products. Do Instant Practices on p. 28 SP. Read "Some Common Chemical Reactions" p. 28-29. Do Worksheet 2-1—Some Common Chemical Reactions Do Activity 2C—Identifying the Products when Wax is Burned. *This will be done as a Teacher Demonstration (Power Point-Candle Burning)* Do Review 2.2 Questions 1, 3, 4 and 5 (point form) on p. 31 SP.
Mass and Chemical Change	Do Activity 2D—Mass of Reactants and Products & Activity 2E—Mass and Gas on p. 34-36 SP. *Use handout to record observations and Do Discussion Questions on Handout* Power Points on scientific laws and the law of conservation of mass. See p. 37-38 SP.
Chapter 2 Review & Test	Flash Cards and Crossword Chapter 2. Study Key Ideas p. 39 SP Complete "Vocabulary" on page 39. *Use your memory, notes and text to help you define these terms*. Do Connection Questions C1, C2, C3, C6, C7 (a & b) & C8 on p. 39-41. This will be shown to the teacher for marks. *Answers will be discussed.* Test on Chapter 2

Topic	Activity
Elements	Class Introduction to Elements and Symbols (Power Point Eng/Latin) Do "Meet the Elements" Lab. *All procedures, observations and questions are included on the handout.* Class introduction to Metals and Non-Metals. See p. 46-47 SP. Do the "Web-Elements" Search Assignment. *See handout.*
Compounds and Compound Formulas	Class Introduction to Chemical Formulas and molecules of compounds and elements. (Power Point-Chemical Formula Intro.)See p. 49-51 SP. Do Activity 3C on p. 52-53 SP. *Formal write-up not required for this one. We will do it together.* Do Review 3.3 Questions 1, 2 and 3 on p. 53 SP. Class Introduction to combining capacities and chemical formulas. *The teacher will also show you about elements with more than one combining capacity and groups. Practice questions will be given on the overhead.* Do Worksheet 3-1 Chemical Formulas and Names Class Explanation of Chemical Formulas and the Law of Conservation of Mass. See p. 57-58 SP. Do Review 3.4 Questions 1-5 on p. 58 SP. Review "Key Ideas" on p. 58 SP. Crossword on Chapter 3
Chapter 3 Review and Test	Complete "Vocabulary" on page 58. *Use your memory, notes and text to help you define these terms.* Do Connection Questions C1, C2, C3, C5, on p. 59 SP. This will be shown to the teacher for marks. *Answers will be discussed.* Test on Chapter 3
Energy in Chemical Reactions	Class Introduction to chemical energy, exothermic and endothermic reactions. See p. 61-63 SP. Mini Lab on Reaction Heats Do Activity 4B—Energy Stored in Food. p. 64-65 SP. *Use Handout to record Observations and do Conclusion Questions.* Do Review 4.1 Questions 1 (a & b), 2, 3, 4 and 5 on p. 66 SP. Do Worksheet 4-1—Heat Calculations

Topic	Activity
Factors Affecting Reaction Rates	Do Activity 4C—Hot or Cold? p. 68 SP. *Do your own purpose and data table for this one*. Do discussion questions 1,2 and 3a-d on p. 68 SP. *Use Microsoft Excel on the computer to make the graph for question 3c. Your teacher will help you with using it*. Use "Excel Graphs for 4C" handout to help you produce a graph of your results. Do Activity 4D—Comparing Surface Area. Do this one in your notebook and show it to the teacher. It does not have to be handed in. Teacher Demonstration of Surface Area using Lycopodium Powder. Class Introduction to Concentration of Solutions. See p. 69 SP. Do Activity 4E—Concentration and Surface Area. In this lab, you will see how concentration of an acid and surface area of a solid affect the rate of reactions Do Activity 4F—Investigating Catalysts on p. 71 SP. Part 1 is written as a teacher demonstration but you will do it in groups. Also do Part 2 with the raw and cooked liver. Do Discussion Questions 1-3 for Part 1 on p. 71 and Questions 1 and 2 for Part 2 on p. 72. Class Introduction to Enzymes and other catalysts. See p. 72-73 SP. Do Review 4.2 Questions 1-7 on p. 73 SP. Class Introduction to Metals and Corrosion. Do Review 4.3 Questions 1 (a & b), 2 on p. 77 SP.
Household Chemicals	Worksheet 5-1—Household Chemicals
Review and Test on Chapter 4	Do "Chapter 4-5 Review" and Crossword on Chapter 4-5 Review "Key Ideas" on p. 78 SP. Complete "Vocabulary" on page 78. *Use your memory, notes and text to help you define these terms*. Do Connection Questions C1, C2, C3, C4, C5, C6 and C7 on p. 78 SP. This will be shown to the teacher for marks. *Answers will be discussed.* A test on Chapter 4 will follow this.