

IMMACULATE CONCEPTION HIGH SCHOOL

GRADE 9 CHEMISTRY SYLLABUS

2017 - 2018

TERM 1

1. IMPORTANCE OF CHEMISTRY

- Careers in Chemistry
- Methods of scientific investigation
- Elements of a lab report
- Line diagrams for lab equipment
- Safety in the lab

2. THE BUNSEN BURNER

- Parts and use of the burner
- Types of flames produced by the Bunsen burner
- Safety when heating substances

3. PHYSICAL AND CHEMICAL CHANGES

- Definition and examples of physical and chemical changes
- Energy changes during physical and chemical changes
- Practical activities for physical and chemical changes

4. STATES OF MATTER

Review of the states of matter and changes of state
Pure and impure matter
Temperature – time graphs

5. ATOMIC THEORY AND THE PERIODIC TABLE

Subatomic particles of the atom
Atomic number and mass number
Drawing of the first twenty elements of the periodic table
History of the Periodic table
Groups and periods of the first twenty elements

Names and properties of groups 1,2,7 and 8 of the periodic table
Positive and negative ions
Properties and uses of metals and non-metals
Common alloys and their uses

TERM 2

6. ELEMENTS COMPOUNDS AND MIXTURES

- Review of definitions of elements, compounds and mixtures
- Differences between mixtures and compounds
- Differences between solutions, colloids and suspensions
- Separation of the components of a mixture

7. FORMULAE AND EQUATIONS

- Description of chemical formulae in terms of symbols and the number of atoms of each element present
- Formulae of simple binary compounds using symbols and valencies
- Reactants and products in a reaction
- Word equations and formulae equations for simple chemical reactions
- Law of mass conservation and its relation to balanced equations
- Types of reactions

TERM 3

8. NATURE OF SUBSTANCES

- Definition of acids, bases, alkalis and salts
- Common acids, alkalis and salts
- pH scales and indicators
- Homemade indicators using materials from the kitchen and garden
- pH of some household substances
- Selected reactions of acids and bases

