CHEMISTRY FORM 3 2009-2010

Textbook: 'Complete Chemistry' by *R. M. Gallagher & P. Ingram*

FIRST TERM

1.	**Basic Chemistry**	
a.	States of matter	Pages 6-13
b.	Elements, compounds and mixtures	Pages 26-27, 14-15, 76
c.	Atoms and molecules	Page 26-27
d.	Physical and chemical change	Pages 76-77
g.	Separating mixtures	Pages 14-17, 20-25
h.	Criteria of purity	
2.	**Atomic Structure.**	
a.	Structure of the atom	Pages 26-31

5 practical sessions/experiments + 1 investigation

SECOND TERM

2.	**Bonding**	
a.	Ionic Bonding	Pages 44-47, 50
b.	Covalent Bonding	Pages 48-49
c.	Giant molecular structures	Pages 51, 56-57
d.	Metallic Bonding	Pages 52-53
3.	**Balancing Chemical Equations**	Pages 78-79
4.	**The Atmosphere**	
a.	Composition of the atmosphere	Pages 156
b.	Industrial extraction of oxygen from liquid air	Pages 176-177
c.	Atmospheric pollution and the greehouse effect	Page 178-179
5.	**Oxygen and Hydrogen**	
a.	Methods of collecting gases	Page 292
b.	Oxygen – laboratory preparation, test, uses and properties	Pages 224-225
c.	Reactions of metals and non-metals with oxygen	Pages 226-227
d.	Oxides of the common elements and their reactions	Pages 226-227
e.	Ozone	Pages 156, 178-179
f.	Rusting of iron and its prevention	Pages 210-211
g.	Hydrogen – laboratory preparation, test, properties and uses	Pages 216
h.	Hydrogen as a fuel	Pages 216

4 practical sessions/experiments

THIRD TERM

6. Water

a.	Occurrence, physical properties and tests	Pages 180
b.	Water as a universdal solvent and solubility	Pages 16-19
c.	Chemical properties of water	Pages 193
d.	Water of crystallisation	Pages 132
e.	Deliquescence, efflorescence and hydroscopy	
f.	Water purification	

7. Hardness in water

a.	Formation of hard water	Pages 184-187
b.	Causes of hard water	
c.	Temporary hardness	
d.	Permanent hardness	
e.	Removal of hardness	
f.	Disadvantages and advantages of hard water	
g.	Soapless detergents and soaps	Page 261

8. Moles

a.	Relative atomic masses and molecular masses	Pages 62-63
b.	Molar mass and Avogadro's constant	Pages 64-65
c.	Percentage composition by mass of a compound	Pages 66-67
d.	Finding the empirical and molecular formula	Pages 68-71
e.	Concentration of solutions	Pages 72-73
f.	Calculations from chemical equations	Pages 80-81
g.	Moles and gases	Pages 82-83
h.	Combining gas laws	

4 practical sessions/experiments

ASSESSMENT MARK DESCRIPTION

TERM	*Classwork/ Homework (40%)*	*Practical Work (20%)*	*Effort (20%)*	*Participation (10%)*	*Behaviour (10%)*	*TOTAL MARK (100%)*
November	4	2	2	1	1	**10**
Mid Year	8	4	4	2	2	**20**
Annual	8	4	4	2	2	**20**