

Contents

<i>Special Features</i>	i
<i>Instructions on Accessing Online Interactive Learning Resources</i>	v
<i>Exam Paper Format</i>	vi
<i>Comparison between NEW and OLD syllabuses</i>	vii

1 Planet Earth..... 2

1.1 The atmosphere	4
1.2 The ocean	6
1.3 Rocks and minerals	12
Demonstration	19
Practice	24

2 The Microscopic World..... 30

2.1 Atomic structure	32
2.2 Periodic Table	38
2.3 Chemical bonds	43
2.4 Structures and properties of different compounds	58
Demonstration	63
Practice	73

3 Metals..... 84

3.1 Occurrence and extraction of metals	86
3.2 Reactivity of metals	93
3.3 Reacting masses	101
3.4 Corrosion of metals and their protection	109
Demonstration	116
Practice	124

4 Acids and Alkalis **134**

4.1 Acids	136
4.2 Alkalis	141
4.3 pH and indicators	145
4.4 Strength of acids and alkalies	147
4.5 Neutralisation	151
4.6 Concentration of solutions	158
4.7 Simple volumetric work	160
4.8 Rate of reaction	167
Demonstration	175
Practice	187
 <i>Solution Guide</i>	197
<i>Index</i>	223
<i>Question Commands</i>	225