

INDEX

Unit		Page
KNOWLEDGE AREA	MATTER AND MATERIALS	9
Unit 1	ATOMIC BONDS: MOLECULAR STRUCTURE	9
	Activity 1	9
	Exercise 1	9
	Activity 2	10
	Practical activity 1	11
	Exercise 2	11
	Activity 3	13
	Exercise 3	13
	Exercise 4	14
	Mind maps of Unit 1	15
Unit 2	INTERMOLECULAR FORCES (BETWEEN MOLECULES)	19
	Exercise 5	19
	Activity 4	20
	Experiment 1	21
	Experiment 2	22
	Experiment 3	23
	Experiment 4	24
	Experiment 5	24
	Exercise 6	25
	Activity 5	26
	Experiment 6	26
	Experiment 7	27
	Experiment 8	28
	Exercise 7	28
	Mind maps of Unit 2	30
Unit 3	IDEAL GASES AND THERMAL PROPERTIES	33
	Exercise 8	33
	Experiment 9	34
	Exercise 9	35
	Experiment 10	37
	Exercise 10	38
	Exercise 11	39
	Exercise 12	40
	Mind maps of Unit 3	41
	Question paper	43
KNOWLEDGE AREA	CHEMICAL CHANGE	47
Unit 1	QUANTITATIVE ASPECTS OF CHEMICAL CHANGE: STOICHIOMETRY	47
	Exercise 13	47
	Exercise 14	48
	Exercise 15	49

	Practical demonstration	50
	Exercise 16	51
	Exercise 17	52
	Exercise 18	53
	Exercise 19	54
	Experiment 11	55
	Exercise 20	57
	Mind maps of Unit 1	59
Unit 2	ENERGY AND CHEMICAL CHANGE	61
	Experiment 12	61
	Experiment 13	62
	Exercise 21	63
	Experiment 14	65
	Exercise 22	66
	Mind maps of Unit 2	67
Unit 3	REACTION TYPES: ACID-BASE REACTIONS	69
	Exercise 23	69
	Practical activity 2	70
	Experiment 15	70
	Experiment 16	71
	Experiment 17	72
	Exercise 24	72
	Mind maps of Unit 3	74
Unit 4	REACTION TYPES: REDOX REACTIONS	75
	Experiment 18	75
	Experiment 19	76
	Experiment 20	78
	Experiment 21	78
	Experiment 22	79
	Exercise 25	80
	Mind maps of Unit 4	82
	Question paper	83
KNOWLEDGE AREA	CHEMICAL SYSTEMS	87
Unit 1	THE DEVELOPMENT OF MINING	87
	Exercise 26	87
Unit 2	MINING AND MINERAL PROCESSING	89
	Exercise 27	89
	Case study: Mapungubwe: South Africa's lost city of gold	91
	Experiment 23	92
	Experiment 24	93
	Experiment 25	93
	Exercise 28	94
	Exercise 29	96

	Project	97
	Mind maps of Unit 2	101
Unit 3	GLOBAL WARMING	107
	Exercise 30	107
	Mind maps of Unit 3	108
	Question paper	109

