

contents

Introduction **1**

- What is science? 1
- Language and science 2
- Analysing scientific language 3

Unit one: Language **5**

- Scientific vs poetic language 7
- Scientific language should be free of bias and emotion 9
- Scientific language and the AIDS epidemic 14
- Problems with scientific terminology 16
- Summary 19
- Further reading 20
- Source 20

Unit two: Metaphor in science **21**

- Metaphors in science 23
- Metaphors as models 25
- Metaphors as theories 26
- Metaphors as theories about atomic structure 28
- Metaphors used to teach science 30
- The language of genetics 33
- Summary 36
- Further reading 36
- Sources 36

Unit three: The grammar of science **37**

- The theory of grammatical metaphor 38
- Grammatical metaphor and scientific theory 41
- Grammatical metaphor and scientific terminology 43
- Grammatical metaphor and scientific arguments 44
- What grammatical transformations reveal about scientific experience 44

Grammatical metaphor and academic writing	45
Summary	45
Further reading	46
Source	46

Unit four: Discourse and facts **47**

The experimental report in science	50
Types of statements and the evolution of scientific 'facts'	59
Tracing the linguistic evolution of facts	60
The classification of statement types	61
Tracing consensus about AIDS	67
Summary	69
Further reading	70
Sources	70

Unit five: Understanding the rhetorical in science **73**

Journals	74
Audience	76
The nature of the subject matter and the authors' purpose	77
Rhetoric as persuasive art	80
Analysing scientific arguments	84
Rhetoric and AIDS	89
Rhetoric and scientific networks	91
Summary	96
Further reading	96

Unit six: Science and culture: the interaction of discourses **99**

Discursive hegemonies	103
Societal discourses may hold sway over science	107
Summary	114

Unit seven: Science and society **115**

Translators of science and their motives	116
Summary	124
Further reading	125
Sources	125