CONTENTS

BILL BRYSON 1

INTRODUCTION & ACKNOWLEDGMENTS

IAMES GLEICK 17

1. AT THE BEGINNING: MORE THINGS IN HEAVEN AND EARTH

MARGARET ATWOOD 37

2. OF THE MADNESS OF MAD SCIENTISTS: JONATHAN SWIFT'S GRAND ACADEMY

MARGARET WERTHEIM 59

3. LOST IN SPACE: THE SPITITUAL CRISIS OF NEWTONIAN COSMOLOGY

NEAL STEPHENSON 83

4. ATOMS OF COGNITION: METAPHYSICS IN THE ROYAL SOCIETY, 1715–2010

REBECCA NEWBERGER GOLDSTEIN 107

5. WHAT'S IN A NAME? RIVALRIES AND THE BIRTH OF MODERN SCIENCE

SIMON SCHAFFER 131

6. CHARGED ATMOSPHERES: PROMETHEAN SCIENCE AND THE ROYAL SOCIETY

RICHARD HOLMES 157

7. A NEW AGE OF FLIGHT: JOSEPH BANKS GOES BALLOONING

RICHARD FORTEY 183

8. ARCHIVES OF LIFE: SCIENCE AND COLLECTIONS

RICHARD DAWKINS 203

9. DARWIN'S FIVE BRIDGES: THE WAY TO NATURAL SELECTION

HENRY PETROSKI 229

10. IMAGES OF PROGRESS: CONFERENCES OF ENGINEERS

GEORGINA FERRY 251

11, X-RAY VISIONS: STRUCTURAL Biologists and Social Action in The Twentieth Century

STEVE JONES 273

12. TEN THOUSAND WEDGES: BIODIVERSITY, NATURAL SELECTION AND RANDOM CHANGE

PHILIP BALL 295

13. MAKING STUFF: FROM BACON TO BAKELITE

PAUL DAVIES 321

14. JUST TYPICAL: OUR CHANGING PLACE IN THE UNIVERSE

IAN STEWART 341

15. BEHIND THE SCENES: THE HIDDEN MATHEMATICS THAT RULES OUR WORLD

IOHN D. BARROW 361

16. SIMPLE. REALLY: FROM SIMPLICITY TO COMPLEXITY – AND BACK AGAIN

OLIVER MORTON 385

17. GLOBE AND SPHERE, CYCLES AND FLOWS: HOW TO SEE THE WORLD

MAGGIE GEE 405

18. BEYOND ENDING: LOOKING INTO THE VOID

STEPHEN H. SCHNEIDER 425

19. CONFIDENCE, CONSENSUS AND THE UNCERTAINTY COPS: TACKLING RISK MANAGEMENT IN CLIMATE CHANGE

GREGORY BENFORD 445

20. TIME: THE WINGED CHARIOT

MARTIN REES 467

CONCLUSION: LOOKING FIFTY YEARS AHEAD

FURTHER READING 488 LIST OF ILLUSTRATIONS 490