

Table of Contents

Application Credits	ii
License Agreement	iii
Installing and Running The Layered Earth	v
Foreword	xi
Section 1: Welcome	1
Teacher Binder at a Glance	3
The Lesson Plans	4
Unit Overview	8
Lesson Overview	9
Lesson Plan Structure	10
The Student Lessons in EarthGuide	12
Section 2: Correlations to Learning Standards	17
Section 3: Lesson Plans	39
Unit A The Solid Earth	
A1 Earth as a System	41
A2 Earth's Layered Structure	47
A3 Oceans and Continents	55
Unit B Plate Tectonics	
B1 Continental Drift	61
B2 Seafloor Spreading and Paleomagnetism	67
B3 The Theory of Plate Tectonics	73
Unit C Minerals and Rocks	
C1 Minerals: Building Blocks of Rocks	81
C2 The Rock Cycle	89
C3 Igneous, Sedimentary, and Metamorphic Rocks	97
C4 Weathering and Soil Formation	105
Unit D Shaping the Earth	
D1 Shaping Earth's Surface	113
D2 Mass Movement	119
D3 Water and Ice Landforms	125
D4 Wind Landforms	133
Unit E Earthquakes	
E1 Earthquakes and Faults	139
E2 Earthquakes and Waves	145
E3 The Strength of Earthquakes	151
E4 Seismic Waves and the Earth's Interior	159
E5 Living with Earthquakes	165

Unit F Volcanoes

F1 Formation of Volcanoes	173
F2 Types of Volcanoes	179
F3 Living with Volcanoes	189

Unit G Geologic Time

G1 Age of the Earth	197
G2 The Geologic Timescale	207
G3 Catastrophic Events and Mass Extinctions	215
G4 Earth's Future	223

Section 4: Assessment Tools 229

Section 5: Glossary of Terms 257