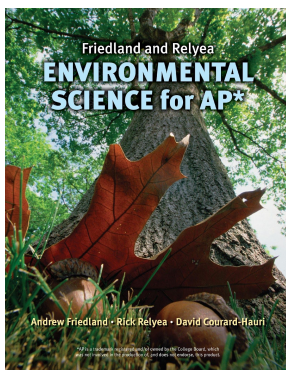




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**Unit 1: The Living World—Ecosystems**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland/Relyea 1E Chapter
1.1	Introduction to Ecosystems	Chapter 1; Chapter 6
1.2	Terrestrial Biomes	Chapter 4
1.3	Aquatic Biomes	Chapter 4
1.4	The Carbon Cycle	Chapter 3
1.5	The Nitrogen Cycle	Chapter 3
1.6	The Phosphorus Cycle	Chapter 3
1.7	The Hydrologic (Water) Cycle	Chapter 3
1.8	Primary Productivity	Chapter 3
1.9	Trophic Levels	Chapter 3
1.10	Energy Flow and the 10% Rule	Chapter 3
1.11	Food Chains and Food Webs	Chapter 3; Chapter 6

**Unit 2: The Living World—Biodiversity**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland/Relyea 1E Chapter/Module
2.1	Introduction to Biodiversity	Chapter 1; Chapter 3; Chapter 5
2.2	Ecosystem Services*	Chapter 10; Chapter 18; Chapter 20
2.3	Island Biogeography	Chapter 6
2.4	Ecological Tolerance	Chapter 5
2.5	Natural Disruptions to Ecosystems	Chapter 3; Chapter 18; Chapter 19
2.6	Adaptations	Chapter 5
2.7	Ecological Succession	Chapter 6; Chapter 14

\*Please note material on ecosystem services covered in the Unit 2 progress check is not covered thoroughly in the textbook until later in the book.



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**Unit 3: Populations**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland/Relyea 1E Chapter/Module
3.1	Generalist and Specialist Species	Chapter 5
3.2	K-Selected r-Selected Species	Chapter 6
3.3	Survivorship Curves	Chapter 6
3.4	Carrying Capacity	Chapter 6
3.5	Population Growth and Resource Availability	Chapter 6
3.6	Age Structure Diagrams	Chapter 7
3.7	Total Fertility Rate	Chapter 7; Chapter 11
3.8	Human Population Dynamics	Chapter 7; Chapter 11
3.9	Demographic Transition	Chapter 7

**Unit 4: Earth Systems and Resources**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland/Relyea 1E Chapter/Module
4.1	Plate Tectonics	Chapter 8
4.2	Soil Formation and Erosion	Chapter 8; Chapter 11
4.3	Soil Composition and Properties	Chapter 8
4.4	Earth's Atmosphere	Chapter 4
4.5	Global Wind Patterns	Chapter 4
4.6	Watersheds	Chapter 3
4.7	Solar Radiation and Earth's Seasons	Chapter 4
4.8	Earth's Geography and Climate	Chapter 4
4.9	El Niño and La Niña	Chapter 4

**Unit 5: Land and Water Use**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland/Relyea 1E Chapter/Module
5.1	The Tragedy of the Commons	Chapter 10; Chapter 20,
5.2	Clear Cutting	Chapter 10
5.3	The Green Revolution	Chapter 11
5.4	Impacts of Agricultural Practices	Chapter 11
5.5	Irrigation Methods	Chapter 9; Chapter 11
5.6	Pest Control Methods	Chapter 11



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<b>5.7</b>	Meat Production Methods	Chapter 11
<b>5.8</b>	Impacts of Overfishing	Chapter 11; Chapter 18
<b>5.9</b>	Impacts of Mining	Chapter 8, Module 25
<b>5.10</b>	Impacts of Urbanization	Chapter 7; Chapter 9; Chapter 10
<b>5.11</b>	Ecological Footprints	Chapter 1
<b>5.12</b>	Introduction to Sustainability	Chapter 1; Chapter 10; Chapter 11; Chapter 13; Chapter 20, Module 66
<b>5.13</b>	Methods to Reduce Urban Runoff	Chapter 3, Module 7; Chapter 10, Module 29
<b>5.14</b>	Integrated Pest Management	Chapter 11
<b>5.15</b>	Sustainable Agriculture	Chapter 11
<b>5.16</b>	Aquaculture	Chapter 11
<b>5.17</b>	Sustainable Forestry	Chapter 10

**Unit 6: Energy Resources and Consumption**

<b>CF Unit/Topic</b>	<b>Curriculum Framework Topic Title</b>	<b>Friedland/Relyea 1E Chapter/Module</b>
<b>6.1</b>	Renewable and Nonrenewable Resources	Chapter 12; Chapter 13
<b>6.2</b>	Global Energy Consumption	Chapter 12; Chapter 13
<b>6.3</b>	Fuel Types and Uses	Chapter 12
<b>6.4</b>	Distribution of Natural Energy Resources	Chapter 12
<b>6.5</b>	Fossil Fuels	Chapter 12
<b>6.6</b>	Nuclear Power	Chapter 12
<b>6.7</b>	Energy from Biomass	Chapter 13
<b>6.8</b>	Solar Energy	Chapter 13
<b>6.9</b>	Hydroelectric Power	Chapter 9; Chapter 13
<b>6.10</b>	Geothermal Energy	Chapter 13
<b>6.11</b>	Hydrogen Fuel Cell	Chapter 13
<b>6.12</b>	Wind Energy	Chapter 13
<b>6.13</b>	Energy Conservation	Chapter 12; Chapter 13



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**Unit 7: Atmospheric Pollution**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland/Relyea 1E Chapter/Module
7.1	Introduction to Air Pollution	Chapter 12; Chapter 15
7.2	Photochemical Smog	Chapter 15
7.3	Thermal Inversion	Chapter 15
7.4	Atmospheric CO <sub>2</sub> and Particulates	Chapter 15
7.5	Indoor Air Pollutants	Chapter 15
7.6	Reduction of Air Pollutants	Chapter 15
7.7	Acid Rain	Chapter 15
7.8	Noise Pollution	Chapter 14

**Unit 8: Aquatic and Terrestrial Pollution**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland & Relyea 1E Chapter/Module
8.1	Sources of Pollution	Chapter 14; Chapter 17
8.2	Human Impacts on Ecosystems	Chapter 8; Chapter 14; Chapter 16; Chapter 17; Chapter 18
8.3	Endocrine Disruptors	Chapter 14; Chapter 17
8.4	Human Impacts on Wetlands and Mangroves	Chapter 4; Chapter 18
8.5	Eutrophication	Chapter 14
8.6	Thermal Pollution	Chapter 14
8.7	Persistent Organic Pollutants (POPs)	Chapter 17
8.8	Bioaccumulation and Biomagnification	Chapter 17
8.9	Solid Waste Disposal	Chapter 14; Chapter 16
8.10	Waste Reduction Methods	Chapter 16
8.11	Sewage Treatment	Chapter 14
8.12	Lethal Dose 50% (LD <sub>50</sub> )	Chapter 17
8.13	Dose Response Curve	Chapter 17
8.14	Pollution and Human Health	Chapter 14; Chapter 15; Chapter 17
8.15	Pathogens and Infectious Diseases	Chapter 17; Chapter 19



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**Unit 9: Global Change**

CF Unit/Topic	Curriculum Framework Topic Title	Friedland & Relyea 1E Chapter/Module
9.1	Stratospheric Ozone Depletion	Chapter 2, Science Applied
9.2	Reducing Ozone Depletion	Chapter 2, Science Applied; Chapter 15; Chapter 19
9.3	The Greenhouse Effect	Chapter 19
9.4	Increases in The Greenhouse Gases	Chapter 1; Chapter 3; Chapter 12; Chapter 13; Chapter 15; Chapter 19
9.5	Global Climate Change	Chapter 4; Chapter 19
9.6	Ocean Warming	Chapter 4; Chapter 19
9.7	Ocean Acidification	
9.8	Invasive Species	Chapter 18
9.9	Endangered Species	Chapter 10; Chapter 18
9.10	Human Impacts on Biodiversity	Chapter 1; Chapter 4; Chapter 18