A Correlation and Narrative Summary of

Pearson Environmental Science
Your World, Your Turn

To the

Tennessee Academic Standards for Science
Environmental Science
The **Environmental Science: Your World, Your Turn** program is based on real, current, and relevant content with cutting-edge digital support that makes environmental science personal and actionable for each student.

- The lessons in every chapter include **summative assessments** that are directly tied to both state and national standards and measure students’ progress toward mastering the Tennessee Academic Standards for Science.
- Students explore real issues through a **Case-Study Approach**. Opening every chapter, and integrated throughout the text and support materials both online and in print, the Central Case provides a consistent and engaging path for teaching core environmental science principles.
- Pearson’s Environmental Science program empowers students to draw their own conclusions and encourages them to think and act on both local and global levels. They will build the critical thinking skills that they will need long after the class ends.
- Every lesson introduction offers tools to help students master concepts by introducing them to key concepts, vocabulary, and a reading and note-taking strategy. Additionally, graphs, charts, illustrations, and photos work hand-in-hand with the text to clarify complex topics for those students who think and learn visually.
- The **ExamView® Test Bank Generator CD** enables teachers to create and print customizable tests from a bank of thousands of questions.
- Pearson’s Environmental Science program resides on **Pearson Realize™**, Pearson’s newest learning management system (LMS), offering standards-aligned content, flexible class management tools, and embedded assessments that deliver reports and student usage data to teachers instantly.

**Realize Your Potential**

Pearson Realize™ provides premium content to help teachers enhance their instructional materials and customize lessons to fit learners’ needs. Teachers can reorder the table of contents, upload files and media, add links, and create custom lessons and assessments. Flexible class management tools enable teachers to create classes, organize students by groups, and create assignments targeted to those groups, individual students, or the entire class. Powerful search tools allow teachers to search by keyword, skill, topic, or standard to quickly find lessons, lesson plans, and instructional resources.

Reports and student usage data give teachers the power to target teaching to improve student outcomes. Digestible student progress reports give teachers instant access to student and class data that show standards mastery on assessments, online activity, overall progress, and the length of time students take on assessments.

To learn more about this program please visit [www.PearsonSchool.com](http://www.PearsonSchool.com)
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<td>Evsc.Ls2: Ecosystems: Interactions, Energy, and Dynamics</td>
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| 1) Using a variety of data sources, construct an explanation for the impact of climate, latitude, altitude, geology, and hydrology patterns on plant and animal life in various terrestrial biomes. | SE/TE: 77, 166-167, 169-180, 181-182, 183-187, 188-191  
Real Data: 179  
Lesson Assessment: 180 (#1-3), 191 (#4, 5)  
Chapter Assessment: 196-197 (#22, 23)  
TE Only: Big Question: 173, 188 |
| 2) Develop an explanation of behavioral and physical adaptations organisms have for life in aquatic habitats with varying chemical and physical features. | SE/TE: 181-187, 187-191  
Go Outside: 183  
Lesson Assessment: 191 (#5)  
Chapter Assessment: 196 (#26, 27)  
TE Only: Big Question: 188 |
| 3) Using mathematical models, support arguments regarding the effects of biotic and abiotic factors on carrying capacity for populations within an ecosystem. | SE/TE: 115-117, 328 (Figure #4)  
Go Outside: 102  
Lesson Assessment: 117 (#1-4)  
Chapter Assessment: 123 (#28-30, 31, 34) |
| 4) Compare and contrast production (photosynthesis, chemosynthesis) and respiratory (aerobic respiration, anaerobic respiration, consumption, decomposition) processes responsible for the cycling of matter and flow of energy through an ecosystem. Using evidence, construct an argument regarding the importance of homeostasis in maintaining these processes in ecosystems. | SE/TE: 84-85, 142-143, 144-145, 146-147  
Lesson Assessment: 89 (#2), 148 (#1-3)  
Chapter Assessment: 160 (#25) |
| 5) Use a mathematical model to explain energy flow through an ecosystem. Using the first and second laws of thermodynamics, construct an explanation for: A) necessity for constant energy input; B) limitations on energy transfer from one trophic level to the next; and, C) limitations on number of trophic levels that can be supported. | SE/TE: 144-145  
Real Data: 144  
Lesson Assessment: 148 (#2) |
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| 6) Evaluate the interdependence among major biogeochemical cycles (water, carbon, nitrogen, phosphorus) in an ecosystem and recognize the importance each cycle has in maintaining ecosystem stability. | SE/TE: 83-89, 90-91  
Lesson Assessment: 89 (#3, 4)  
Chapter Assessment: 94 (#29)  
Ecological Footprint: 95  
TE Only:  
Big Question: 87 |
| 7) Examine stability and change within an ecosystem by using a model of succession (primary or secondary) to predict impacts of disruption on an ecosystem. | SE/TE: 149-155  
Quick Lab: 152  
Lesson Assessment: 155 (#1-3)  
Chapter Assessment: 160 (#27, 28)  
TE Only:  
Big Question: 150  
Guiding Question: 149 |

**EVSC.LS4: Biological Change: Unity and Diversity**

| 1) Construct an explanation based on scientific evidence for mechanisms of natural selection that result in behavioral, anatomical, and physiological adaptations in populations. | SE/TE: 127-129  
Lesson Assessment: 132 (#1, 3) |
| 2) Justify claims with scientific evidence that changes in environmental conditions lead to speciation and extinction. | SE/TE: 118-119, 131-132, 207-208  
Lesson Assessment: 132 (#2) |
| 3) Evaluate the impact of habitat fragmentation and destruction, invasive species, overharvesting, pollution, and climate change on biodiversity (genetic, species, and ecosystem). | SE/TE: 118-119, 125, 209-211, 125, 153-155, 497-499  
What Do You Think: 153  
Map It: 210  
Lesson Assessment: 155 (#2, 3), 211 (#2, 3), 501 (#1, 4)  
TE Only:  
Guiding Question: 497, Big Question: 500 |
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| 4) Engage in argument from scientific evidence critiquing effectiveness of the Endangered Species Act. Give specific examples to support your argument. | SE/TE: 212-213  
Lesson Assessment: 217 (#1, 4)  
TE Only: Big Question: 213 |

**EVSC.ESS2: Earth’s Systems**

| 1) Research the development of the theory of plate tectonics. Use the theory to construct an explanation for how changes in Earth's crust cause mountain formation, volcanoes, earthquakes, and tsunamis. Provide evidence to support the explanation using information pertaining to plate boundary types (divergent, convergent, transform). | SE/TE: 77-78, 277-278, 279  
Map It: 77  
Lesson Assessment: 82 (#1)  
TE Only: Focus: 76 |

| 2) Considering Earth's position within our solar system, use a model to demonstrate the causes of day length, seasons, and climate. | SE/TE: 485-486, 487  
Quick Lab: 486 |

| 3) Analyze the composition of the Earth's atmosphere. Obtain information and use graphs to observe patterns regarding stability and change within the Earth's atmospheric composition (O₂, N₂, CO₂, etc.) over geologic time. | SE/TE: 452, 462-463, 467  
Go Outside: 467  
Chapter Assessment: 478 (#17)  
TE Only: Focus: 452 |

| 4) Differentiate weather and climate and analyze and interpret data examining naturally occurring patterns pertaining to each. | SE/TE: 165, 458-460, 488-490  
Real Data: 179  
Graphs: 169-178 |

| 5) Plan and carry out an investigation examining the chemical and physical properties of water and the impact of water on Earth's topography. Analyze data and share findings. | SE/TE: 69-70, 420-425  
Find Out More: 421  
Map It: 422  
Lesson Assessment: 71 (#3), 425 (#1, 2) |
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**EVSC.ESS3: Earth and Human Activity**

| 1) Research Earth’s natural resources (renewable and nonrenewable resources). Construct an argument from evidence supporting the claim that a particular type of resource is important for humans. | SE/TE: 6-7, 324-327, 420-421 Find Out More: 421 Ecological Footprint: 33 Lesson Assessment: 425 (#1) |
| 2) Interpret graphical data representing global human population growth over time. Look for patterns within this data and construct possible explanations for the patterns. Revise the explanations as needed based on research. | SE/TE: 228-229, 229 (Figure 1), 230-231, 231 (Figure 4), 232 (Figure 5), 232-233 Real Data: 230 Lesson Assessment: 233 (#1-3) Chapter Assessment: 252 (#26), 253 (#33, 34) |
| 3) Obtain and evaluate information regarding demographics for a variety of countries. Construct an explanation for varying fertility rates and life expectancies between countries and throughout human history. Taking into account demographic transition, predict what trends are likely to occur in various countries over time. | SE/TE: 234-235, 235 (Figure 8), 236 (Figure 9), 236-237, 238-241, 240 (Figure 12) What Do You Think: 235 Quick Lab: 237 Lesson Assessment: 241 (#1-5) Chapter Assessment: 252 (#28-30) |

**SE = Student Edition  TE = Teacher’s Edition**
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| 4) Gather, organize, analyze, and present data on current land use trends by humans. Based on analysis, predict future trends. | **SE/TE:** 242-245, 292-294, 293 (Figure 2), 303  
Lesson Assessment: 247 (#1, 3) |
| 5) Plan and carry out an investigation examining best management practices in water usage, agriculture, forestry, urban/suburban development, mining, or fishing and communicate findings. | **SE/TE:** 292-294, 297, 299-301, 305-308, 307 (Figure 15), 309-313, 324-329, 332-334, 337-339, 342, 362-363, 381-382, 408-410, 432-434  
What Do You Think: 306, 409  
Go Outside: 310  
Central Case: 291, 323  
Point Counterpoint: 412-413  
Unit Project: 320  
Lesson Assessment: 313 (#1-6), 329 (#1-3), 336 (#1-4), 364 (#3), 411 (#2), 434 (#5)  
Chapter Assessment: 318 (#27-31) |
| 6) Use a model to make predictions regarding the impact of topsoil loss due to erosion resulting from human activity. Design, evaluate, and revise a solution to preserve topsoil. | **SE/TE:** 358-361, 361-363  
Lesson Assessment: 364 (#1, 5) |
| 7) Construct an argument including claim, evidence, and scientific reasoning regarding the impact of the Green Revolution on agricultural practices, food availability, and the environment. | **SE/TE:** 368-372, 381-383  
Lesson Assessment: 372 (#2, 3, 5), 383 (#1, 4)  
Chapter Assessment: 388 (#23) |

**TE Only:**  
Guiding Question: 242, 292  
Big Question: 245  
Guiding Question: 305  
Big Question: 296, 311, 333  
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Big Question: 368

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| 8) Research information on the environmental impacts of genetically modified organisms and engage in debate regarding pros and cons of this agricultural technology. | SE/TE: 375-377  
What Do You Think: 377  
Lesson Assessment: 383 (#2)  
Chapter Assessment: 388 (#25) |
| 9) Evaluate ecosystem services provided by forests ecosystems. Construct an explanation for human impact on these services. | SE/TE: 327 (Figure 3), 327, 328, 330-334, 335-336, 337-339, 342  
What Do You Think: 328  
Real Data: 332  
Quick Lab: 334  
Lesson Assessment: 336 (#1-4)  
Chapter Assessment: 348 (#26), 349 (#35) |
Lesson Assessment: 217 (#3, 4) |
| 11) Define problems and suggest solutions associated with using, conserving, and recycling energy and mineral resources taking into account economic, social, and environmental costs and benefits. | SE/TE: 398-402, 405-411, 520-521, 524-526, 527-528, 530-535, 539-541  
What Do You Think: 409, 540  
Map It: 402, 534  
Real Data: 530  
Quick Lab: 520  
Central Case: 515  
Point Counterpoint: 412-413  
Ecological Footprint: 417  
Lesson Assessment: 404 (#4), 411 (#1-4), 528 (#6), 535 (#2, 5), 541 (#5) |

**TE Only:**  
Guiding Question: 536  
Big Question: 400, 407, 532, 540
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| 12) Ask questions about technology needed to develop alternative energy sources and obtain information from various sources to answer those questions. | SE/TE: 550-555, 556-560, 561-566, 566-569, 570-573  
What Do You Think: 553  
Go Outside: 564  
Map It: 568  
Real Data: 552  
Point Counterpoint: 574-575  
Lesson Assessment: 555 (#1, 4), 560 (#4), 569 (#5), 573 (#3)  
Chapter Assessment: 579 (#35, 37)  
TE Only:  
Guiding Question: 556, 561, 570  
Big Question: 554, 558, 566 |
| 13) Analyze and interpret data on the effects of land, water, and air pollution on the environment and on human health. Propose solutions for minimizing pollution from specific sources. | SE/TE: 273-274, 363-364, 368-371, 437, 438 (Figure 19), 439-443, 463 (Figure 12), 464, 469-473  
Real Data: 471  
Lesson Assessment: 276 (#2, 4), 443 (#4)  
TE Only:  
Big Question: 368, 470 |
| 14) Obtain and communicate information on environmental laws pertaining to the regulation of pollution and on regulatory agencies. Provide a specific example of how a given business/industry would comply with such regulations. | SE/TE: 46-47, 48-51, 52-53, 439, 441-442, 462-463, 469, 470-473  
Real Data: 51, 471  
Success Stories: 56-57  
Lesson Assessment: 364 (#3), 473 (#1, 3)  
Chapter Assessment: 61 (#31, 32)  
TE Only:  
Guiding Question: 48  
Big Question: 53 |
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| 15) Evaluate current methods of waste management and reduction and design possible improvements. | SE/TE: 582-588, 589-595, 596-603  
What Do You Think: 594  
Central Case: 581  
Find Out More: 587  
Quick Lab: 591  
A Closer Look: 604-605  
Ecological Footprints: 609  
Lesson Assessment: 588 (#2, 3), 595 (#3), 603 (#3, 6)  
Chapter Assessment: 609 (#33, 34)  
TE Only:  
Guiding Question: 589, 596  
Big Question: 583, 592, 597 |
| 16) Obtain, evaluate, and communicate scientific information tracing the breakdown of ozone caused by chlorofluorocarbons and the effectiveness of efforts to address this environmental problem. | SE/TE: 14-20, 472-473  
Central Case: 3  
Go Outside: 19  
Lesson Assessment: 473 (#2) |
| 17) Using mathematics and computational thinking, analyze data linking human activity to climate change. Design solutions to address human impacts on climate change. | SE/TE: 491-492, 493-495, 495-496, 496 (Figure 10), 500-501, 502-507  
Real Data: 493  
Science Behind the Stories: 508-509  
Ecological Footprint: 513  
Chapter Assessment: 513 (#33-37)  
TE Only:  
Guiding Question: 502  
Big Question: 495 |
| 18) Use mathematics to calculate ecological footprints. Develop a personal plan for reducing your impact on the environment. | SE/TE:  
Ecological Footprint: 61, 95, 197, 223, 289, 319, 389, 449, 479, 513, 547, 579, 609 |
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<td>EVSC.ETS2: Links Among Engineering, Technology, Science, and Society</td>
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| 1) Engage in argument from evidence on the role engineering and technology play in a sustainable human society. | SE/TE: 246-247, 305-312, 313  
What Do You Think: 306  
Go Outside: 310  
Lesson Assessment: 247 (#2), 313 (#1, 2, 4, 5) |
| TE Only:  
Guiding Question: 305  
Big Question: 311 |
| 2) Research and communicate information on an environmental science career. Analyze the role of society, engineering, technology, and science in that career. | SE/TE: 5-6, 12-13, 14-20, 24-27, 30-41, 42-43, 46-47, 48-50  
Go Outside: 19  
Quick Lab: 37 |
| TE Only:  
Big Question: 39 |
| EVSC.ETS3: Applications of Science | |
| 3) Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts. | SE/TE: 53-55  
Lesson Assessment: 55 (#4)  
Unit Projects: 96, 224, 320, 480, 610 |