Houghton Mifflin Harcourt

Correlation to the Florida Course Description for Environmental Science Course Code 2001340

Holt McDougal
Environmental Science
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2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION
STANDARDS ALIGNMENT
COURSE STANDARDS/BENCHMARKS (Form IM7)

BID ID:	**3263**
SUBMISSION TITLE:	**Holt McDougal Environmental Science ©2013**
GRADE LEVEL:	**9–12**
COURSE TITLE:	**Environmental Science**
COURSE CODE:	**2001340**
ISBN:	**9781328737779'**
PUBLISHER:	**Houghton Mifflin Harcourt**
PUBLISHER ID:	**04145603001**

BENCHMARK CODE	BENCHMARK	LESSONS WHERE STANDARD/BENCHMARK IS DIRECTLY ADDRESSED IN MAJOR TOOL (MOST IN-DEPTH COVERAGE LISTED FIRST) (Include the student edition and teacher edition with the page numbers of lesson, a link to lesson, or other identifier for easy lookup by reviewers.)
SC.912.E.6.6	Analyze past, present, and potential future consequences to the environment resulting from various energy production technologies.	**SE/TE:** Section 16.2, pp. 415-420; Section 16.3, pp. 421-425; Chapter 16 Review, p. 431 (#33-34, 36, 37); Section 12.1, p. 304; Section 17.1, pp. 435, 440-441; Section 17.1 Formative Assessment, p. 443 (#3); Chapter 17 Points of View: Pipelines and Oil Sands, pp. 448-449; Chapter 17 Review, p. 452 (#30), p. 453 (#33, #35); Chapter 19 Points of View, pp. 500-501; Section 20.1, p. 515; Section 13.3, pp. 339-345 **TE Only:** Chapter 16 Summary, Alternative Assessment, p. 428; Section 5.2, p. 125; Chapter 13 Summary, Alternative Assessment, p. 348; Section 18.1, p. 464 (Misconception Alert)
SC.912.E.7.7	Identify, analyze, and relate the internal (Earth system) and external (astronomical) conditions that contribute to global climate change.	**SE/TE:** Section 13.1, pp. 327-334; Section 13.3, pp. 339-345; Chapter 13 Making a Difference: Climate Scientist, pp. 346-347; Section 3.1, p. 65; Section 3.2, p. 72; Chapter 3 Review, p. 86 (#27); Section 2.1, p. 35 (Connect to Geology) **TE Only:** Chapter 13 Summary, Alternative Assessment, p. 348 **Online Lab:** Observing the Greenhouse Effect, Extension activity (Section 13.3) **Multimedia Lab:** Virtual Investigation: *Carbon Dioxide and Global Warming* (Chapter 13)
SC.912.E.7.8	Explain how various atmospheric, oceanic, and hydrologic conditions in Florida have influenced and can influence human behavior, both individually and collectively.	**SE/TE:** Section 3.3, pp. 74-75 (Case Study: Storm Surge, Tsunamis, and Coastal Wetlands); Chapter 7 Maps in Action, p. 186 **Online Lab:** Tsunami (Section 3.1)
SC.912.E.7.9	Cite evidence that the ocean has had a significant influence on climate change by absorbing, storing, and moving heat, carbon, and water.	**SE/TE:** Section 3.3, pp. 74-78; Section 13.1, pp. 327, 332; Section 13.3, pp. 341-343; Section 5.2, p. 124

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SC.912.L.14.6	Explain the significance of genetic factors, environmental factors, and pathogenic agents to health from the perspectives of both individual and public health.	**SE/TE:** Chapter 20, pp. 510-531 **Online Lab:** Effects of Chemicals on Reproductive Organs (Section 20.1); Determining the Effective Half-life of Iodine-131 in the Human Body – see Extension activity #1 (Section 20.1); Communicating Disease Information (Section 20.2)
SC.912.L.15.3	Describe how biological diversity is increased by the origin of new species and how it is decreased by the natural process of extinction.	**SE/TE:** Section 1.1, p. 15; Section 4.2, pp. 97-101; Section 10.1, p. 243; Section 10.2, p. 245 **Online Lab:** Relating Natural Selection and Frequency of Traits (Section 4.2) **Multimedia Lab:** Virtual Lab: *Evolution and Natural Selection* (Chapter 4)
C.912.L.15.13	Describe the conditions required for natural selection, including: overproduction of offspring, inherited variation, and the struggle to survive, which result in differential reproductive success.	**SE/TE:** Section 4.2, pp. 97-101 **Online Lab:** Relating Natural Selection and Frequency of Traits (Section 4.2) **Multimedia Lab**: Virtual Lab: *Evolution and Natural Selection* (Chapter 4)
SC.912.L.16.10	Evaluate the impact of biotechnology on the individual, society and the environment, including medical and ethical issues.	**SE/TE:** Section 15.2, p. 393; Chapter 15 Points of View: Genetically Modified Foods, pp. 400-401
SC.912.L.17.1	Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.	**SE/TE:** Section 2.2, pp. 38-39; Section 8.1, pp. 197-202; Section 9.1, p. 220; Chapter 9 Lab: How Will Our Population Grow?, pp. 238-239 **Online Lab:** Pyramid Building (Section 5.1)
SC.912.L.17.4	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	**SE/TE:** Section 5.3, pp. 129-133; Section 13.3, p. 344 **Online Lab:** Investigating Succession (Section 5.3)
SC.912.L.17.5	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	**SE/TE:** Section 4.1, pp. 94-96; Section 8.1, pp. 197-202; Chapter 8 Lab, pp. 216-217; Section 9.1, pp. 219-224 **TE Only:** Section 6.2, p. 147 (EcoSmart: Limiting Factors)
SC.912.L.17.6	Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.	**SE/TE:** Section 8.1, p. 201; Section 8.2, pp. 203-209; Chapter 8 Society and the Environment, pp. 210-211; Appendix B, Field Study: Observing Competition, p. R9 **Online Labs:** Observing Competition (Section 8.2); Modeling Predation (Section 8.2); Predator-Prey Interactions (Section 8.2)

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SC.912.L.17.7	Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.	**SE/TE:** Section 4.1, pp. 93-96; Chapter 5 Lab, pp. 140-141 **TE Only:** Section 6.2, p. 147 (EcoSmart: Limiting Factors)
SC.912.L.17.8	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	**SE/TE:** Section 1.1, p. 15; Chapter 10, 240-265; Section 13.3, p. 344 **TE Only:** Section 1.1, p. 5 (Differentiated Instruction) **Online Labs:** A Foreign Invasion (Section 10.2); Modeling the Effects of Habitat Fragmentation (Section 10.2)
SC.912.L.17.9	Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.	**SE/TE:** Section 5.1, pp. 117-123 **Online Lab:** Dissecting Owl Pellets (Section 5.1) **Multimedia Lab:** Virtual Lab: *Ecosystems and Energy Pyramids* (Chapter 5)
SC.912.L.17.10	Diagram and explain the biogeochemical cycles of an ecosystem, including water, carbon, and nitrogen cycle.	**SE/TE:** Section 5.2, pp. 124-127 **Online Labs:** Explaining the Carbon Cycle in Fermentation (Section 5.2); Modeling a Closed System (Section 5.1); The Water Cycle (Section 5.2); Modeling the Water Cycle (STEM Lab and Inquiry Lab)
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	**SE/TE:** Section 1.1, p. 14; Section 10.3, pp. 252-257; Section 11.1, pp. 269-275; Section 11.2, pp. 276-283; Section 14.3, pp. 363-369; Chapter 16, pp. 410-433; Chapter 17, pp. 413-455; Chapter 18, pp. 456-479 **TE Only:** Chapter 10 Summary, Alternative Assessment, p. 260
SC.912.L.17.12	Discuss the political, social, and environmental consequences of sustainable use of land.	**SE/TE:** Chapter 14, pp. 354-377; Section 21.2, pp. 540-541 **TE Only:** Section 21.2, p. 541 (Homework: Publicly-Owned Land) **Online Labs:** Evaluating a Land-Use Decision (Section 14.1); Analyzing Land Use (Section 14.1); Creating a Land-Use Model (Section 14.2); Land-Use Planning (Section 14.2)
SC.912.L.17.13	Discuss the need for adequate monitoring of environmental parameters when making policy decisions.	**SE/TE:** Section 21.1, 533-538; Section 21.2, 539-543 **TE Only:** Section 21.2, p. 541 (Homework: Publicly-Owned Land) **Online Lab:** Proposing Environmental Laws (Section 21. 2)

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SC.912.L.17.14	Assess the need for adequate waste management strategies.	**SE/TE:** Chapter 19, pp. 480-507; Section 11.3, pp. 286-287 **Online Lab:** Modeling Sanitary Landfills and Garbage Dumps (Section 19.1)
SC.912.L.17.15	Discuss the effects of technology on environmental quality.	**SE/TE:** Section 18.1, pp. 457-465; Section 18.2, pp. 466-469; Section 11.2, pp. 276-283; Section 12.1, p. 307; Section 13.3, pp. 339-345; Section 14.2, p. 361; Section 15.2, p. 393; Chapter 15 Points of View, pp. 400-401; Section 16.3, pp. 421-425; Chapter 17 Points of view, pp. 448-449 **Online Lab:** Generation of Natural Gas from Biomass (Section 18.2)
SC.912.L.17.16	Discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.	**SE/TE:** Section 16.2, pp. 418-419; Section 16.3, pp. 421-425; Chapter 16 Society and the Environment, p. 427; Chapter 16 Review, pp. 429-431; Section 17.1, pp. 439-443; Section 17.1 Formative Assessment, p. 443 (#3); Chapter 17 Points of View: Pipelines and Oil Sands, pp. 448-449; Chapter 17 Review, p. 452 (#30), p. 453 (#33, #35); Section 19.1, pp. 481-487; Section 19.3, p. 493; Section 5.1, pp. 120-121; Section 5.2, pp, 125, 128; Section 20.1, pp. 516-518; Section 20.1 Formative Assessment, p. 518 (#2); Chapter 20 Review, p. 529 (#32); Section 13.3, pp. 339-345; Section 6.2, pp. 150-151 (Case Study); Section 3.2, p. 72; Section 3.2 Formative Assessment, p. 72 (#6); Section 11.3, pp. 314-317; Chapter 12 Society and the Environment, p. 319 **TE Only:** Chapter 16 Summary, Alternative Assessment, p. 428; Section 5.2, p. 125 (Differentiated Instruction: Pre-AP), p. 126 (Differentiated Instruction: Pre-AP), p. 127 (Teach with Technology); Chapter 13 Summary, Alternative Assessment, p. 348 **Online Labs:** Observing Pollution from Mining (Section 16.3); Observing the Greenhouse Effect, Extension activity (Section 13.3); Cleaning Up Oil Spills (Section 19.3); Wetlands Acid Spill (Section 19.3); Modeling Pesticide Pollution (Section 19.3); Field Study: Sources of Pollution (Section 20.1); Recommending River Clean-up Strategies Section 21.1) **Multimedia Lab:** Virtual Investigation: *Carbon Dioxide and Global Warming* (Chapter 13)
SC.912.L.17.18	Describe how human population size and resource use relate to environmental quality.	**SE/TE:** Section 9.2, pp. 225-227; Section 16.2, pp. 418-419; Section 16.3, pp. 421-425 **Online Labs:** Observing Pollution from Mining (Section 16.3); Modeling Pesticide Pollution (Section 19.3); Field Study: Sources of Pollution (Section 20.1); Communicating Disease Information (Section 20.2); Recommending River Clean-up Strategies Section 21.1); Challenges for the People of the Future (Section 21.3)
SC.912.L.17.19	Describe how different natural resources are produced and how their rates of use and renewal limit availability.	**SE/TE:** Section 1.1, p. 14; Chapter 16, pp. 410-431
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	**SE/TE:** Section 20.1, pp. 515-518 **Online Labs:** Observing Pollution from Mining (Section 16.3); Modeling Pesticide Pollution (Section 19.3); Field Study: Sources of Pollution (Section 20.1); Recommending River Clean-up Strategies Section 21.1); Organizing a Sustainable Product Guide (Section 21.3)

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SC.912.N.1.1	Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and do the following: 1. pose questions about the natural world, 2. conduct systematic observations, 3. examine books and other sources of information to see what is already known, 4. review what is known in light of empirical evidence, 5. plan investigations, 6. use tools to gather, analyze, and interpret data (this includes the use of measurement in metric and other systems, and also the generation and interpretation of graphical representations of data, including data tables and graphs), 7. pose answers, explanations, or descriptions of events, 8. generate explanations that explicate or describe natural phenomena (inferences), 9. use appropriate evidence and reasoning to justify these explanations to others, 10. communicate results of scientific investigations, and 11. evaluate the merits of the explanations produced by others.	The benchmark is fully covered throughout the program. The following are some of the many examples: **SE/TE:** Section 1.1, pp. 31-34; Chapter 2 Lab: Risk Assessment, pp. 56-57; Chapter 4 Lab: How Do Brine Shrimp Select a Habitat?, pp. 114-115 **Online Labs:** Scientific Methods (Section 2.1); Relating Natural Selection and Frequency of Traits (Section 4.2) **Multimedia Lab:** Virtual Investigation: The Scientific Process (Chapter 2)
SC.912.N.1.2	Describe and explain what characterizes science and its methods.	**SE/TE:** Section 2.1, pp. 31-37; Section 2.1 Formative Assessment, p. 37 (#1) **Online Lab:** Scientific Methods (Section 2.1) **Multimedia Lab:** Virtual Investigation: The Scientific Process (Chapter 2)
SC.912.N.1.3	Recognize that the strength or usefulness of a scientific claim is evaluated through scientific argumentation, which depends on critical and logical thinking, and the active consideration of alternative scientific explanations to explain the data presented.	**SE/TE:** Section 1.2, pp. 20-21 (Critical Thinking and the Environment); Section 1.2 Formative Assessment, p. 21 (#2); Chapter 9 Review, p. 236 (#31); Chapter 21 Review, p. 26 (#21) **Online Lab**: Scientific Methods (Section 2.1) **Multimedia Lab:** Virtual Investigation: The Scientific Process (Chapter 2)

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SC.912.N.1.4	Identify sources of information and assess their reliability according to the strict standards of scientific investigation.	**SE/TE:** Section 1.2, pp. 20-21; Section 21.2, p. 543 (The Media and Sources of Information); Section 21.2 Formative Assessment, p. 543 (#6); Chapter 1 Review, pp. 26 (#21) **TE Only:** Section 2.1, p. 34 (Misconception Alert); Section 2.2, p. 38 (Homework) **Online Labs:** Critical Thinking and the News (Section 1.1); Evaluating Viewpoints (Section 2.3); Analyzing Environmental Issues (Section 2.3); Forming an Opinion: Farm-Raised Salmon (Section 15.3)
SC.912.N.1.5	Describe and provide examples of how similar investigations conducted in many parts of the world result in the same outcome.	**SE/TE:** Section 2.1, pp. 33-34
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	**SE/TE:** Section 2.1, p. 31; Chapter 10 Lab, pp. 264-265 (Conclusions, question #5)
SC.912.N.2.1	Identify what is science, what clearly is not science, and what superficially resembles science (but fails to meet the criteria for science).	Related content: **SE/TE:** Section 2.1, pp. 31-37
SC.912.N.2.2	Identify which questions can be answered through science and which questions are outside the boundaries of scientific investigation, such as questions addressed by other ways of knowing, such as art, philosophy, and religion.	**SE/TE:** Section 2.1, pp. 31-37 **TE:** Section 2.1, p. 37 (*Reteach* activity)
SC.912.N.2.4	Explain that scientific knowledge is both durable and robust and open to change. Scientific knowledge can change because it is often examined and re-examined by new investigations and scientific argumentation. Because of these frequent examinations, scientific knowledge becomes stronger, leading to its durability.	**SE/TE:** Section 2.1, pp. 31-37 **TE Only:** Section 2.1, p. 32 (Differentiated Instruction/Group Activity: Laws and Theories); Section 3.1, p. 61 (Misconception Alert: Catastrophism), p. 62 (Connect to History: Alfred Wegener) **Online Lab:** Scientific Methods (Section 2.1) **Multimedia Lab:** Virtual Investigation: *The Scientific Process* (Chapter 2)
SC.912.N.3.1	Explain that a scientific theory is the culmination of many scientific investigations drawing together all the current evidence concerning a substantial range of phenomena; thus, a scientific theory represents the most powerful explanation scientists have to offer.	**TE Only:** Section 2.1, p. 32 (Differentiated Instruction/Group Activity: Laws and Theories) **Multimedia Lab:** Virtual Investigation: *Evolution and Natural Selection* (Chapter 4)

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SC.912.N.3.5	Describe the function of models in science, and identify the wide range of models used in science.	**SE/TE:** Section 2.2, pp. 42-44; Section 2.2 Formative Assessment, p. 44 (#3, #6); Section 2.3, p. 45; Section 2.3 Formative Assessment, p. 49 (#1, #5); Chapter 2 Review, p. 54 (#23, #30); Chapter 3 Lab: Beaches, pp. 88-89; Chapter 13 Lab: Build a Model of Global Air Movement, pp. 352-353; Chapter 14 Lab: Creating a Land-Use Model, pp. 376-377; Section 13.3, p. 342; Section 20.1, p. 513 **TE Only:** Section 2.2, p. 42 (Differentiated Instruction), p. 43 (Differentiated Instruction: Group Activity, Connect to Chemistry: The Periodic Table), p. 44 (Reteach: Models); Section 2.3, p. 49 (Reteach: Applying the Decision-Making Model); Chapter 2 Summary, p. 52 (Alternative Assessment); Section 9.1, p. 222 (Differentiated Instruction/Group Activity: Modeling Infant Mortality) **Online Labs:** Analyzing Environmental Issues (Section 2.3); Modeling a Closed System (Section 5.1); Modeling Mini-Biomes (Section 6.1); Modeling Biomes (Section 6.1); Modeling Population Changes (Section 9.2); Modeling the Effects of Habitat Fragmentation (Section 10.2); Modeling the Mining Process (Section 16.2)
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.	**SE/TE:** Section 2.3, pp. 43-49; Section 21.2, pp.539-543 **Online Lab:** Analyzing Environmental Issues (Section 2.3); Making a Decision (Section 21.3)
SC.912.P.10.1	Differentiate among the various forms of energy and recognize that they can be transformed from one form to others.	**SE/TE:** Section 18.1, pp. 460-461; Section 18.2, pp. 468-470; Section 17.2, p. 445 **Online Lab:** Converting Water Power into Electricity (Section 18.1)
SC.912.P.10.2	Explore the Law of Conservation of Energy by differentiating among open, closed, and isolated systems and explain that the total energy in an isolated system is a conserved quantity.	**SE/TE:** Section 1.1, p. 12; Section 3.3, p. 81; Section 5.2, p. 124 **Online Lab:** Energy Transfer (Section 18.2)
LAFS.1112.RST.1.1	Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.	This standard is covered throughout the program. The following are some of the many examples. **SE/TE:** pp.37 (#5), 49 (#5), 185 (#6), 452 (#27) **Online Student Resources (Student Tools):** Scientific Reasoning Skill Builder, Chapter 7, Section 7-5, Exercise 10, pp. 122–124
LAFS.1112.RST.1.2	Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.	**SE/TE:** 39 (Check for Understanding), 350 (#30), 382 (Check for Understanding), 486 (Differentiated Instruction), 547 (Check for Understanding) **TE Only:** 42 (Reading Toolkit), 244 (Reteach), 283 (Alternative Assessment), 292 (Reading Toolkit), 345 (Reteach), 362 (Reteach), 383 (Reteach), 443 (Reteach), 516 (Differentiated Instruction), 538 (Reteach)

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LAFS.1112.RST.1.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.	The benchmark is covered throughout the lab program. The following are examples: **SE/TE:** 14, 28-29, 32, 56-57, 70, 78, 88-89, 105, 114-115, 125, 140-141, 158, 170-171, 180, 192-193, 198, 216-217, 231, 238-239, 254, 264-265, 288, 300-301, 316, 324-325, 330, 352-353, 365, 376-377, 386, 406-407, 420, 432-433, 438, 454-455, 468, 478-479, 491, 506-507, 520, 530-531, 546, 554-555 **Online Labs:** Risk Assessment (Chapter 2, Section 2); Recognizing Seismic Patterns (Chapter 3, Section 1); Observing Organisms Through the Seasons (Chapter 4, Section 3); Analyzing Population Trends (Chapter 9, Section 2); Inferring Patterns of Disease Spread (Chapter 20, Section 2)
LAFS.1112.RST.2.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.	**TE Only:** 7 (Reading Toolkit), 30 (Differentiated Instruction: Group Activity), 46 (Citizen Science), 47 (Reading Toolkit), 411 (Differentiated Instruction), 413 (Reading Toolkit), 439 (Reading Toolkit) **Online Teacher Resources:** Teacher Toolkit Section D—Vocabulary Strategies, pp. D25–D31
LAFS.1112.RST.2.5	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	**SE/TE:** 47 (#2), 438 (#28), 452 (#27, 28) **TE Only:** 153 (Reading Toolkit), 246 (Differentiated Instruction: English Learners)
LAFS.1112.RST.2.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.	**Online Labs:** Critical Thinking and the News (Section 1.2); Evaluating Viewpoints (Chapter 2, Section 3);
LAFS.1112.RST.3.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.	**SE/TE:** 54 (#32), 139 (#37), 169 (#37), 191 (#37), 215 (#34), 431 (#34) **TE Only:** 182 (Differentiated Instruction) **Online Labs:** Analyzing Water Use (Chapter 11, Section 2); Comparing Climate Features (Chapter 13, Section 1); Calculating Average and Yearly Temperatures (Chapter 13, Section 1); Your Household Energy Consumption (Chapter 17, Section 1)
LAFS.1112.RST.3.8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.	**SE/TE:** 21 (Formative Assessment item #5) **Online Labs:** Critical Thinking and the News (Section 1.2); Evaluating Viewpoints (Chapter 2, Section 3); Risk Assessment (Chapter 2, Section 2); Recognizing Seismic Patterns (Chapter 3, Section 1); Observing Organisms Through the Seasons (Chapter 4, Section 3); Analyzing Population Trends (Chapter 9, Section 2); Inferring Patterns of Disease Spread (Chapter 20, Section 2)
LAFS.1112.RST.3.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	**SE/TE:** 54 (#32), 139 (#37), 169 (#37), 191 (#37), 215 (#34), 431 (#34) **TE Only:** 182 (Differentiated Instruction) **Online Lab:** Evaluating Viewpoints (Chapter 2, Section 3)

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LAFS.1112.RST.4.10	By the end of grade 12, read and comprehend science/technical texts in the grades 11–12 text complexity band independently and proficiently.	**SE/TE:** 54 (#32), 139 (#37), 169 (#37), 191 (#37), 215 (#34), 431 (#34) **TE Only:** 182 (Differentiated Instruction) **Online Lab:** Evaluating Viewpoints (Chapter 2, Section 3)
LAFS.1112.SL.1.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	**TE Only:** 20 (Differentiated Instruction:Group Activity), 40 Differentiated Instruction:Group Activity), (247 (Differentiated Instruction:Group Activity and Pre-AP activity), 419 (Classroom Discussion), 481 (Differentiated Instruction: Below Level activity and Group Activity)
LAFS.1112.SL.1.2	Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.	**TE Only:** 78 Differentiated Instruction:Pre-AP Activity), 481 (Differentiated Instruction: Below Level activity)

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LAFS.1112.SL.1.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	**TE Only:** 419 (Classroom Discussion)
LAFS.1112.SL.2.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	**TE Only:** 20 (Differentiated Instruction:Group Activity), 40 Differentiated Instruction:Group Activity), 78 Differentiated Instruction:Pre-AP Activity), 247 (Differentiated Instruction:Group Activity and Pre-AP activity),419 (Classroom Discussion), 481 (Differentiated Instruction: Below Level activity and Group Activity)
LAFS.1112.SL.2.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	**TE Only:** 78 Differentiated Instruction:Pre-AP Activity), 247 (Differentiated Instruction:Group Activity and Pre-AP activity), 481 (Differentiated Instruction: Below Level activity and Group Activity)

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LAFS.1112.WHST.1.1	Write arguments focused on discipline-specific content. a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from or supports the argument presented.	**SE/TE:** 87(#35), 237 (#38), 263 (#32), 299 (#36), 351 (#33, 34), 431 (#34), 529 (#31) **TE Only:** 469 (Differentiated Instruction) **Online Labs:** Evaluating Viewpoints (Chapter 2, Section 3); Analyzing Environmental Issues (Chapter 2, Section 3); Analyzing the Local Impact of Environmental Legislation (Chapter 21, Section 2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper*

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LAFS.1112.WHST.1.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	**SE/TE:** 87(#35), 237 (#38), 263 (#32), 299 (#36), 351 (#33, 34), 431 (#34), 529 (#31) **TE Only:** 469 (Differentiated Instruction) **Online Labs:** Analyzing Environmental Issues (Chapter 2, Section 3); Analyzing the Local Impact of Environmental Legislation (Chapter 21, Section 2); Local Policies (Chapter 21, Section 2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Writing a Lab Report, Research Paper*
LAFS.1112.WHST.2.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	**SE/TE:** 87(#35), 237 (#38), 263 (#32), 299 (#36), 351 (#33, 34), 431 (#34), 529 (#31) **TE Only:** 469 (Differentiated Instruction) **Online Labs:** Evaluating Viewpoints (Chapter 2, Section 3); Analyzing Environmental Issues (Chapter 2, Section 3); Analyzing the Local Impact of Environmental Legislation (Chapter 21, Section 2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper*

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LAFS.1112.WHST.2.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	**SE/TE:** 87(#35), 237 (#38), 263 (#32), 299 (#36), 351 (#33, 34), 431 (#34), 529 (#31) **TE Only:** 469 (Differentiated Instruction) **Online Labs:** Evaluating Viewpoints (Chapter 2, Section 3); Analyzing Environmental Issues (Chapter 2, Section 3); Analyzing the Local Impact of Environmental Legislation (Chapter 21, Section 2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper*
LAFS.1112.WHST.2.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	**TE Only:** 78 Differentiated Instruction:Pre-AP Activity), 247 (Differentiated Instruction:Group Activity and Pre-AP activity)
LAFS.1112.WHST.3.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject,demonstrating understanding of the subject under investigation.	**SE:** 54 (#32), 139 (#37), 169 (#37), 191 (#37), 215 (#34), 431 (#34) **TE Only:** 466 (Differentiated Instruction), 550 466 (Differentiated Instruction) **Online Lab:** **STEM Lab:** Analyzing the Local Impact of Environmental Legislation (21.2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper*
LAFS.1112.WHST.3.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	**SE/TE:** 54 (#32), 139 (#37), 169 (#37), 191 (#37), 215 (#34), 431 (#34) **TE Only:** 466 (Differentiated Instruction) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper*

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LAFS.1112.WHST.3.9	Draw evidence from informational texts to support analysis, reflection, and research.	**SE/TE:** 87(#35), 237 (#38), 263 (#32), 299 (#36), 351 (#33, 34), 431 (#34), 529 (#31) **TE Only:** 469 (Differentiated Instruction) **Online Labs:** Evaluating Viewpoints (Chapter 2, Section 3); Analyzing Environmental Issues (Chapter 2, Section 3); Analyzing the Local Impact of Environmental Legislation (Chapter 21, Section 2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper*
LAFS.1112.WHST.4.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**SE/TE:** 87(#35), 237 (#38), 263 (#32), 299 (#36), 351 (#33, 34), 431 (#34), 529 (#31) **TE Only:** 469 (Differentiated Instruction) **Online Labs:** Evaluating Viewpoints (Chapter 2, Section 3); Analyzing Environmental Issues (Chapter 2, Section 3); Analyzing the Local Impact of Environmental Legislation (Chapter 21, Section 2) **Online Teacher Resources:** **Online Teacher Tools—Classroom Management Resources:** *Research Paper, Writing a Lab Report*
MAFS.912.F-IF.2.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.	This standard is beyond the scope of *Holt McDougal Environmental Science* .
MAFS.912.S-ID.1.1	Represent data with plots on the real number line (dot plots, histograms, and box plots).	This standard is beyond the scope of *Holt McDougal Environmental Science* .
MAFS.912.S-ID.1.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	**SE/TE:** 39
MAFS.912.S-ID.1.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	This standard is beyond the scope of *Holt McDougal Environmental Science* .

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MAFS.912.S-ID.2.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	This standard is beyond the scope of *Holt McDougal Environmental Science* .
HE.912.C.1.3	Evaluate how environment and personal health are interrelated.	**SE/TE:** Section 20.1, pp. 511-518 **Online Labs:** Effects of Chemicals on Reproductive Organs (Chapter 20, Section 1); Lead Poisoning and Mental Ability (Chapter 20, Section 1)
HE.912.C.1.7	Assess the degree of susceptibility to injury, illness or death if engaging in unhealthy/risky behaviors.	This standard is beyond the scope of *Holt McDougal Environmental Science* .
ELD.K12.ELL.SC.1	English language learners communicate information, ideas and concepts necessary for academic success in the content area of Science.	Differentiated Instruction strategies and activities for English Language Learners are provided throughout the Teacher's Edition.The Following are some of the many examples: **TE:** 6, 33, 70, 246
ELD.K12.ELL.SI.1	English language learners communicate for social and instructional purposes within the school setting.	Differentiated Instruction strategies and activities for English Language Learners are provided throughout the Teacher's Edition.The Following are some of the many examples: **TE:** 6, 33, 70, 246