**Course Name: Environmental Systems**
**School Year: 2025-2026**

**Course Purpose and Relevance:**
In Environmental Systems, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include biotic and abiotic factors in habitats, ecosystems and biomes, interrelationships among resources and an environmental system, sources and flow of energy through an environmental system, relationship between carrying capacity and changes in populations and ecosystems, and changes in environments.

- The student uses scientific methods during laboratory and field investigations.
- The student, for at least 40% of instructional time, conducts hands-on laboratory and field investigations using safe, environmentally appropriate, and ethical practices.
- The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom.
- The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes.
- The student knows the interrelationships among the resources within the local environmental system.
- The student knows the sources and flow of energy through an environmental system.
- The student knows the relationship between carrying capacity and changes in populations and ecosystems.
- The student knows that environments change naturally.
- The student knows the impact of human activities on the environment.

**Available Support for Student Learning:**
Refer to the teacher's Course Syllabus for resources and course specific opportunities.
Student textbook and/or digital version are available through the CCISD Student Portal.

**Link to Course TEKS on State website:**
Environmental Systems TEKS Link

| Year-at-a-Glance 25-26 | Subject | Environmental Systems |
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| | First Semester Instruction |
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| 1st Nine Weeks | **Unit 1: Scientific and Engineering Practices**<br>BB 1: Lab Safety in Environmental Systems (1C)<br>BB 2: Exploring Phenomena through Inquiry and Engineering Design (1-4)<br><br>***TEKS 1-4 will be embedded throughout each unit supporting the implementation of 3-Dimensional Instruction.*** |
| | **Unit 2: Earth as a System**<br>BB 1: Earth Systems (7A)<br>BB 2: Heat Energy in Ecosystems (7C)<br>BB 3: Natural Disasters (9A) |
| | **Unit 3: Abiotic Cycles**<br>BB 1: Abiotic Cycles – (5B)<br>BB 2: Impact of Cycle Changes (5C, 5D) |
| | **Unit 4: Water Quality**<br>BB 1: Water Quality (5D, 6B)<br>BB 2: Ecosystem Interdependence (6B, 7A) |
| 2nd Nine Weeks | **Unit 5: Agriculture and Soil**<br>BB 1: Soil Biodiversity & Health (5A, 5B, 5C, 5F, 7A, 9C)<br>BB 2: Impact of Land Use Practices (6A)<br>BB 3: Sustainable Farming (11C) |
| | **Unit 6: Fossil Fuels, Energy, and Natural Resources**<br>BB 1: Resource Management and Sustainability (6A, 6C, 6E)<br>BB 2: Energy Sources (7B) |
| | **Unit 7: Pollution, Pesticides, & Toxicology**<br>BB 1: Sources of Pollution (10A, 10B)<br>BB 2: Impact of Pollution on Ecosystems (10C, 10D) |
| | **Semester Exam**<br>Early Release 12/19 |

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| | Second Semester Instruction |
|---|---|
| 3rd Nine Weeks | **Unit 8: Ecology**<br>BB 1: Biome Diversity (5A, 7A)<br>BB 2: Food Chains (5E, 5F, 7D)<br>BB 3: Ecosystem Stability (5G, 9C) |
| | **Unit 9: Population Dynamics**<br>BB 1: Factors Influencing Population Dynamics (6D, 8B)<br>BB 2: Population Growth and Trends (8A, 8C, 8D) |
| | **Unit 10: Climate Change**<br>BB 1: Environmental Change (9A, 10E)<br>BB 2: Global Impacts (9B, 9E, 10E)<br>BB3: Short- and Long-Term Effects (9D) |
| 4th Nine Weeks | **Unit 11: Conservation**<br>BB 1: Conservation and Waste Management (6B, 6F, 11C)<br>BB 2: Renewable and Non-Renewable Resources (6C)<br>BB 3: Human Impact - Positive and Negative (11A, 11B) |
| | **Unit 12: Ethics and Economics**<br>BB 1: Economic Impacts on Environment (12A, 12B, 12E)<br>BB 2: Influence of Ethics on Environment (12C, 12D, 12E) |
| | **Unit 13: Environmental Law**<br>BB 1: Historical and Current Environmental Legislation (13A, 10D)<br>BB 2: Impact of International Agreements (13B) |
| | **Semester Exam**<br>Early Release 5/21<br>P 5/22 \| H 5/25 |