



# Kelloggsville Virtual School

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## Environmental Science

Course Description

2 Semesters; 1 credit

Environmental Science explores the biological, physical, and sociological principles related to the environment in which organisms live on Earth, the biosphere. Course topics include natural systems on Earth, biogeochemical cycles, the nature of matter and energy, the flow of matter and energy through living systems, populations, communities, ecosystems, ecological pyramids, renewable and nonrenewable natural resources, land use, biodiversity, pollution, conservation, sustainability, and human impacts on the environment.

Case studies of current environmental challenges introduce each content lesson and acquaint students with real-life environmental issues, debates, and solutions. Lab activities reinforce critical thinking, writing, and communication skills and help students develop a deeper understanding of the nature of science. Virtual Lab activities enable students to engage in investigations that require long periods of observation at remote locations and to explore simulations that enable environmental scientists to test predictions. Throughout this course, students are given an opportunity to understand how biology, earth science, and physical science are applied to the study of the environment and how technology and engineering are contributing solutions for studying and creating a sustainable biosphere. This course is built to state standards. **"Dry" Labs require no materials other than a spiral notebook. Hands on labs require a list of materials that a teacher will share at the beginning of the course if applicable.**

**Unit 1: Introduction to Environmental Science**

**Unit 2: Earth's Physical Systems**

**Unit 3: The Biosphere**

**Unit 4: Ecology**

**Unit 5: Semester 1 Review and Exam**

**Unit 6: Humans and the Environment**

**Unit 7: Environmental Challenges**

**Unit 8: Politics and the Environment**

**Unit 9: Sustainability for the Future**

**Unit 10: Semester 2 Review**