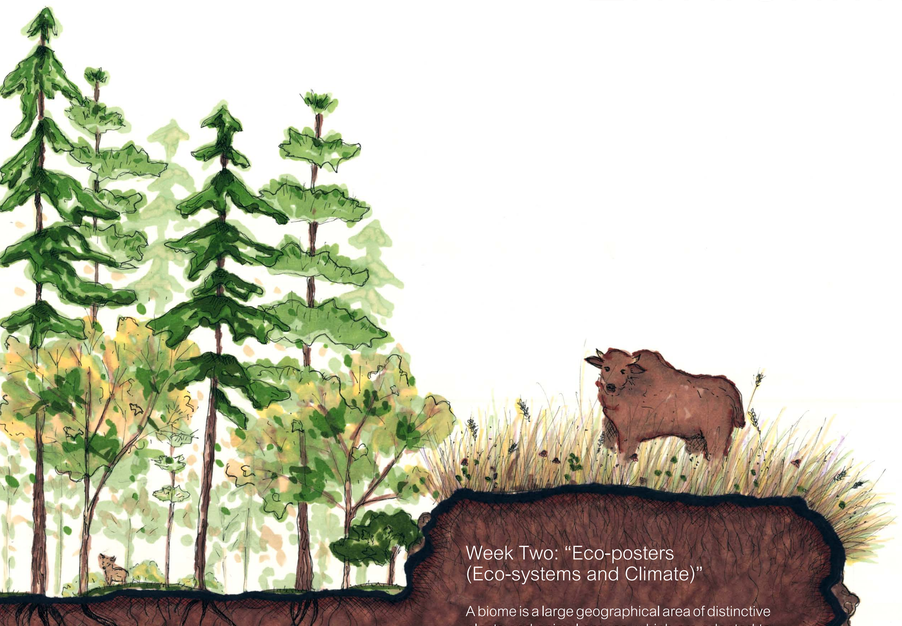
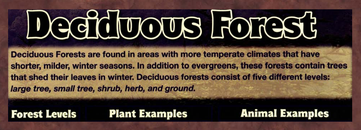
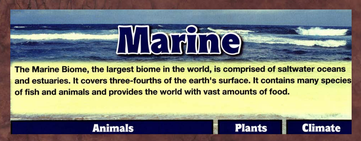
Environment + Ethics + Upward Bound + KSU = CHANGE



Week One: "Learn about biomes"

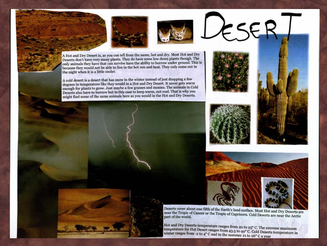
To understand a biome, students needed to understand about climate of the region; where each biome is found and what it's geography is like; the special adaptations of the vegetation; and types of animals found in the biome and their physical and behavioral adaptations to their environment.

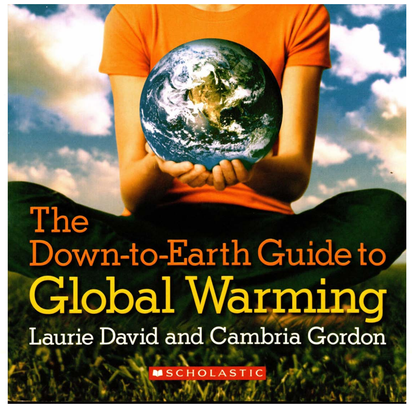




Week Two: "Eco-posters (Eco-systems and Climate)"

A biome is a large geographical area of distinctive plants and animal groups, which are adapted to that particular environment. Each biome consists of many ecosystems whose communities have adapted to the small differences in climate and environment inside the biome.





Week Three: "Plants and Animals"

Students worked individually and in KSU Green Teams to produce posters, and potted plants/ terrariums with Dr. Richard Mattson, who guided students through the design of their terrariums. Containers used for the projects were used jars, vases, bowls, and decanters from local thrift shops or Howies.

Students conducted stream velocity testing and stream quality control for organisms on the Konza Prairie. Teams measured water flow and collected water samples.

Week Four: "Environmental Ethics"

Since students ate their meals at Derby Food Center, the staff explained the progression of "food processing" and the level of waste associated with meals. Following the tour, students visited the Student Farm to see the cycle of food processing, ie. how food becomes compost and used to replant the food supply. Students planted alfalfa, beans, and greens.

Week Five: "Reduce, Reuse, and Recycle, Go Green Now!"

The waste we create has to be carefully controlled to be sure that it does not harm our environment and our health. Waste is anything discarded, rejected, surplused, abandoned, or otherwise released into the environment in a manner (or quantity) that could have an impact on that environment.
Students were challenged to daily collect their waste in a recycle bin in their rooms provided by the university. Each week their items were recorded to determine the most effective recycler. They also tracked waste through the University Recycling Center and Howies. For four weeks, students sorted paper and bottles at the Center and explored the many different avenues waste takes after processing at Howies. Students also visited the Rain Garden at the International Student Center, green roof at Seaton Hall, and passive/active solar systems at KSU University for Man.

Science is a process. Science is a method of learning more about the world. Science constantly changes the way we understand the world.

Environmental problems have a cultural and social context. Under- standing the role of cultural, social and economic factors is vital to the development of solutions.

Environmental science is an expression encompassing the wide range of scientific disciplines that need to be brought together to understand and manage the natural environment and the many interactions among physical, chemical, and biological components.

This Upward Bound, Non-bridge course is a five-week summer laboratory experience with classroom assignments, games, internet search, video, projects, field trips, and community service endeavors. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to:

- understand the interrelationships of the natural world
- identify and analyze environmental problems (natural and man-made)
- evaluate the relative risks associated with these problems, and
- examine alternative solutions for resolving and/or preventing them.

At the end of the course, students should know characteristics of biomes vs. eco-systems; plants and animals, climate vs. weather; biodiversity; recycling/ composting process; and sustainable strategies.

Week Six: "Cultural Change"

Projects (reused/redecorated liquor bottles from local bars and Howies; recycled jars, vases, and bowls from local thrift shops, designed as terrariums for students to maintain; and recycling competition) and public service at KSU Recycling Center have engaged students and their families to changed their recycling habits.