

Highlight Number 2

Title: Growing Up Thinking Scientifically (GUTS): Cyberinfrastructure Enhanced Education in New Mexico

Authors: Dr. Lori Liebrock (New Mexico Tech)

Project GUTS – Growing Up Thinking Scientifically – is a summer and after-school science, technology, engineering and math (STEM) program primarily for middle school students. Growing up thinking scientifically means learning to look at the world and ask questions, develop answers to the questions through scientific inquiry, and design solutions to such problems. Twenty-six 5th and 6th graders from Cameo Elementary School in Clovis, NM met in the after-school GUTS club twice a month from fall 2009 through Spring 2010. The students excitedly embraced learning how to do agent based computer modeling using Starlogo TNG. They learned how to program the agents to make designs, how to create an ecosystem and add a predator to that ecosystem, and spent a good deal of time customizing their ecosystems. Through the process of modifying their ecosystems, students learned about predator-prey relationships and population growth curves as well as how to create a balanced ecosystem that was sustainable over a period of time. Next year, such ecosystem models will be extended with a temperature variable to study impact of climate change on population survival.



Cameo NM GUTS club members and leader (Photo: Paige Prescott paigeaprescott@gmail.com).

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