

# The Climate and Environmental Change Teen Summit

*A Science Technology Engineering and Mathematics (STEM) program designed to connect middle and high school students with Rutgers scientists and provide students with an overall understanding of climate related issues.*



## Introduction

The Climate & Environmental Change Student Summit program is an annual program aimed at spurring the interest of middle and high school student in science, technology, engineering and math (STEM) and exposing youth to the roots and global reach of Rutgers cutting edge climate change science. The program will 1) introduce young people to the concept of climate and climate change through hands-on science activities and talks and 2) support students in planning and implementing climate change related service projects in their local communities. Our objective is to provide young people with both scientific knowledge and the life skills (decision making) required to improve understanding and application of knowledge in both their personal lives and as active citizens.



## Program Outline

This multi day program, which is held on the Cook Campus of the School of Environmental and Biological Sciences (SEBS) at Rutgers University, New Brunswick, follows this general outline:

**Fall: Understanding Climate Change 101** - Students work with Rutgers University faculty and staff to enhance their understanding of climate science in this one-day workshop. The theme for this year's event is coastal resiliency. To support them in learning the about this theme and to prepare them for their projects on local adaptation and mitigation strategies, they participate in hands-on activities, use the NJ Flood Mapper, and listen to scientists who study sea level rise.

**Back at School: Research and Application** – Students work on a community project around the theme of the Summit. The document the progress and results of this project by producing a short video. This year, students will also participate in a webinar led by a professional storyteller/media producer to learn effective practices for communicating scientific information using video and other media.

**Spring: Knowledge to Action** - Students return to campus to learn about sustainability programs conducted at Rutgers University and visit the solar farm. They also view the winning videos and talk more about how they can bring what they've learned at the summit to their school.



## Improved Student Understanding and Perception of Climate Change

After participating in the program, students were asked to gauge their knowledge of climate change science and the actions that they can take to mitigate and/or adapt to climate change. Overall, the 2013 participants indicated an enhanced understanding of climate science and mitigation strategies. 98% of youth reported that their understanding of the science and scientists involved in climate change research improved after the program. Students also reported they had a better understanding of how they can make a positive changes to reduce climate change. The table below summarizes the student responses from the 2013 event to statements about their understanding.

Are you leaving this program with any of the following?	Yes	No	Not Sure
Improved understanding of how scientists are involved in studying climate change	100%	0%	0%
New understanding of climate change issues	94.2%	1.4%	4.3%
Better understanding of how I can make positive changes to reduce the impacts of climate change	84.1%	5.8%	10.1%

Along with positive changes in understanding, past participants have reported changes in their perception of climate change. Throughout the four years that we offered the 4-H Climate and Environmental Change Teen Summit, 100% of the students noted in their post-survey they could make a positive impact by reducing their carbon footprint and encouraging others (family, school, and friends) to do the same.

## Looking Ahead

The New Jersey 4-H program seeks to geographically expand the Climate and Environmental Teen Summit to include more schools. We are currently seeking additional funding and scientist volunteers to enable more young people to benefit from this experience. Our goal is for our Climate Change Ambassadors to continue to share their knowledge and experiences with elementary and middle school age youth as well as members of their communities. These young people surely will be among "the one million new scientists and one million new ideas" envisioned by the national 4-H program.

## Contact:

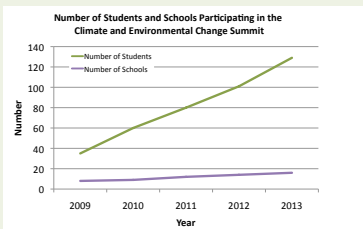
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## Program Statistics

Student participation in the 4-H Climate and Environmental Change Summit has grown steadily since its inception in 2009. Last year, 129 young people from 16 middle school, high school and home school groups participated in the program. A total of 22 Rutgers University faculty and graduate students and a representative from the non-profit group, Alliance for Climate Education (ACE), presented climate change science presentations. Each school team developed, enacted, and presented a community Action Plan related to the climate change science introduced during the summit.



## Youth – Scientist Partnerships

This project was designed to enhance interdisciplinary collaborations between natural and social scientists involved in the Rutgers University Climate and Environmental Change Initiative, and the invited teens and their teachers. Figure 1 shows the average values of the student self report assessments both before and after the Climate and Environmental Change Teen Summit. Students reported positive changes in their ability to work as part of a team, work in adult-youth partnerships, plan and organize, be a leader, serve their community, and develop plans of action.

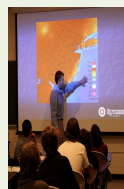


Figure 1. Please rate yourself on these skills before and after you your participation in the Climate and Environmental Change Teen Summit.

