



## **WeatherX: Understanding Weather Extremes with Big Data**

### *Inspiring Rural Youth in Data Science*

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**Project type:** Strategies

**Project URL:** <https://www.edc.org/weatherx>

**Project Overview:** WeatherX has developed and is studying curriculum units for middle-school science classes in which students use large-scale data to investigate typical and extreme weather in their rural communities and on New Hampshire's Mount Washington. The project has collaborated with 12 teachers and over 470 students in rural NH and ME.

Participating students enjoyed and learned from interactive investigations of local and extreme weather data, weather scientists, and rural community members.

### **Lessons Learned & Insights Gained**

*Teachers were able to implement the curriculum units despite the challenges of COVID. Teachers and students quickly learned to make graphs of NOAA weather data using the Common Online Data Analysis Platform (CODAP). A top-rated activity was "Chat with a Scientist," when scientists from Mount Washington Observatory addressed questions about their lives and work in live, virtual sessions.*

### **Equity**

*WeatherX has focused on serving low-income rural communities in NH and ME. Students learned to graph and analyze large-scale weather data from their local area and Mount Washington. Students tapped into the cultural wealth of their communities by interviewing community members about their experiences with weather. Students also learned about careers in their area that use weather data.*

### **New Challenges & Next Steps**

*We are in the analysis phase of our project after two years of classroom implementation. Initial findings indicate that students found the curriculum engaging and teachers were able to incorporate important data practices into their middle-school science classrooms. We are exploring ways to help teachers adapt WeatherX units for their local areas to expand to other rural communities.*