Talcott Mountain Science Center **Topic** Solar Cells

Home School Science **Instructor** Mrs. Roberts

Home Links **Date** Oct. 13, 2023

Here's some information about the activities your student did with us. Links at the bottom will help you explore further. Enjoy!

What did we do (content, skills, data collection)?

We built series and parallel circuits using solar cells and calculated the power each configuration generated. We also compared solar power generation indoors vs. outdoors.

How did we do it (materials & methods)?

We worked in pairs and small groups. Each group had a set of 8 solar cells, the hardware to connect them together, and a multimeter to measure the volts and amps generated. Each group built a series circuit and recorded the power generated indoors and outdoors. They then reconfigured the cells into a parallel circuit and measured the power generation indoors and outdoors. We then calculated the watts generated and discussed how and why the different circuit types had different results.

Where can we find out more?

US Energy Information Administration: https://www.eia.gov/energyexplained/solar/photovoltaics-and-electricity.php
Energy.gov - How Does Solar Work?: https://www.energy.gov/eere/solar/how-does-solar-work
Solar Cells and Circuits: https://edu.rsc.org/resources/solar-cells-and-circuits/1294.article