

This year, the UW-Madison Quarknet center sponsored a workshop for high school teachers held remotely by Dr. Katherine Shirey, who had previously deployed with the IceCube project at the South Pole in the [2010-11 season as part of the NSF funded PolarTREC program](#). Elaine Krebs, an informal science educator who deployed with IceCube at the South Pole in the [2022-23 season also as part of the PolarTREC program](#), assisted. Teachers Katrina Jones (Physical Science, Chehalem Valley MS, Newberg, OR), Elle LeBlanc (Vandegrift HS, Chemistry and Microbiology, Austin, TX), Kasey DiSessa (Environmental Science, Deptford HS, Deptford, NJ), Sarah Groenwald (Environmental and Biology, Moffat County HS, Craig, Co), Clare Bunton (Math, Wyoming HS, Wyoming, MI) met for five two-hour sessions over the course of 6 weeks starting April 20, 2023.

Jim Madsen, Interim Director of WIPAC, gave an introductory talk on the IceCube project, and subsequent sessions looked at IceCube and the engineering design process. The goal was to inspire the high school teachers to develop an engaging activity for high school students and test this activity in the summer two-week science enrichment course for high school students in the UW-River Falls Upward Bound Program. Dr. Shirey coordinated and directed the development of the two-week course with help from Elaine Krebs. All the teachers except Katrina Jones traveled to UW-River Falls to work with the 24 high school students taking the Upward Bound course. Jim Madsen attended one day and presented on IceCube. The student project, working in teams of two, was to design a sustainable station to conduct research in a remote location. They learned about the South Pole station from Shirey and Krebs who shared their experiences living and working there, and about the requirements for food, fuel, and housing to keep a major facility functioning.



Figure 1: Students presented posters on their station design.

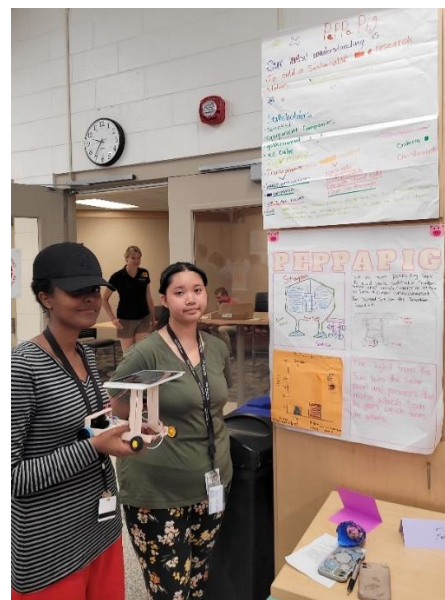


Figure 2: In addition to sustainable stations, students also investigated solar powered cars.