

UPHAM WOODS OUTDOOR LEARNING CENTER

2023 IMPACTS • UNIVERSITY OF WISCONSIN-MADISON EXTENSION



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NUMBER OF YOUTH CONTACTS IN NATURE'S NAVIGATORS STEM CAMP

Through Nature's Navigators: Supporting Neurodiverse Learners in STEM Education, autistic youth benefit from educational supports such as experiential learning opportunities, specialized teaching strategies, STEM career exposure, and social skills development for college and career success. To provide these supports, Extension's Upham Woods Outdoor Learning Center partnered with the Nelson Institute's Center for Climatic Research to implement the nature-based, experiential outdoor series called "Nature's Navigators STEM camp." The camp included hands-on field investigations on soil, atmosphere, forestry, aquatic organisms, and live reptiles and amphibians, as well as socioemotional skills development. These experiences support Extension's larger goals of increasing outdoor accessibility to diverse groups and providing inclusive camp options for Wisconsin youth to better prepare them for positive futures in STEM and related fields.



Nature's Navigators: Supporting Neurodiverse Learners

Research has shown that autistic students choose STEM majors at a much higher rate than neurotypical students, yet college attendance rates for autistic youth are much lower than expected. Recommendations for easing the transition of autistic youth to college include experiential learning opportunities, specialized teaching strategies, STEM career exposure, and social skills development.

To address this need, Upham Woods Outdoor Learning Center partnered with the Nelson Institute's Center for Climatic Research to design, market, implement, and evaluate an outdoor, nature-based, experiential opportunity for neurodiverse learners called "Nature's Navigators STEM camp." The camp included hands-on learning experiences in the outdoors including field investigations on soil, atmosphere, forestry, aquatic organisms, and live reptiles and amphibians. A multi-tiered evaluation investigated the program's impact on camp participants' connections with peers, degree of positive experience, and increase in interest and knowledge of STEM topics. When asked what participants enjoyed most about their camp experience, the top response was, "nature and friends." When asked to rate how their interest in STEM topics had changed as a result of participation, "very interested" was the top response. These findings support an outdoor and experiential education approaches as successful learning strategies for increasing autistic students' socioemotional skills, enthusiasm for environmental stewardship, enhanced relationships between people and nature, and scientific and environmental literacy.

"Before I came here I didn't know I liked frogs, but now I'm the frog king!"

– Nature's Navigators STEM Camp Participant



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