



**Massena Boys and Girls Club STEM Camp**  
**August 13<sup>th</sup> – 14<sup>th</sup>, 2019**

Nicandri Nature Center  
 19 Robinson Bay Rd, Massena NY 13662

**SUBJECT TO CHANGE**

August 13th

<b>Time</b>	<b>Activity</b>
9:00-10:00am	Breakfast and Icebreakers Activity
10:00-11:00am	Climate Change, and Environmental Impact Activity: Power Plant Hook-up Description: The basics of energy production and NYPA's generation and consumption are introduced in an interactive, animated presentation. Students engage in games to understand how electricity is generated. Other topics include fossil fuels, power plants, environmental and health impacts; and climate change.
11:00-12:00pm	Exploring Energy Activity: Energy Transfers Description: Through class discussion and hands-on exploration, students are introduced to basic energy concepts including types of energy and the First and Second Laws of Thermodynamics. Students rotate through different experiment stations in which they investigate various types of energy transformations.
12:00-1:00	Lunch
1:00-2:00	Battery Building and Design Activity: Building Batteries Description: Students investigate how batteries work and explore the challenges of storing energy and renewable resources. Students will employ their understanding of battery storage to construct and test batteries using common household materials.  Light Bulb Lab Description: Students explore energy usage by utilizing tools that measure their daily energy consumption. Through this activity students will gain an understanding of energy efficiency.
2:00-3:00	Kickball

August 14<sup>th</sup>



Time	Activity
9:00-9:30am	Breakfast
9:30-11:30	Nicandri Nature Center Activities (subject to change) <ul style="list-style-type: none"> <li>• Incredible Invertebrates - meet some live bugs and learn about the characteristics that make them special.</li> <li>• Fintastic Fish - Learn about fish through our live fish collection. Learn to ID fish you see in the wild, what habitats fish need, how they breathe underwater, and more!</li> <li>• Turtle Power - meet turtles native to NY and do an activity with them (turtle race, maze, etc.)</li> </ul>
11:30-12:00	Lunch
12:00-1:30	Wind Turbine Engineering and Design Activity: Wind Turbine Design and Building Description: Students explore the benefits and challenges of wind power. In a hands-on experiment, students design and construct model wind turbines, measure the power they produce, and then refine their designs to optimize output. The winning team will receive a prize!
1:30-2:30	Motivational Leadership Segment
2:30-3:00	Graduation

### **New York Power Authority Environmental Justice Program**

The New York Power Authority is the largest state owned utility in the United States generating nearly 25% of the State's power. Seventy percent of the power NYPA generates is from hydroelectric renewable power, without fossil fuels and their related emissions. NYPA is committed to being a good neighbor and leveraging internal strengths to benefit the host communities living near our facilities. NYPA provides innovative and engaging STEM education enrichment to K-12 students in basic energy education and renewable energy technology. The program also provides STEM curriculum development and teacher training.