

Libertyville High School

2022 Theme of the Year Award Winner - High School

Project Focus: Energy & Justice at School

Staff Involved: 11

Location: Libertyville, IL

Students: 102



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The Project:

Libertyville High School has engaged its students in environmental conservation & sustainability education and action through both curricular & extracurricular programs. The school science curriculum features AP Environmental Science and extracurricular offerings include L.E.A.F.—Leaders in Environmental Action Force (a student club focused on sustainability & conservation) as well as E.C.O.S.—Earth's Climate and Ocean Sustainability (a club focused on environmental conservation & alternative energy).

Through these programs, LHS students have created a school-wide recycling program, installed LED lighting systems throughout the school built outdoor classroom inside a garden composed of native plants, Implemented school-wide “Shake it, Don’t Waste it”, and created a paper towel reduction campaign.



The Prairie Classroom:

The Prairie Classroom was designed to serve as an outdoor learning space for all LHS students. From a seldom used courtyard filled with turf grass, over the past 4 years students at LHS have completely redesigned the courtyard as a living laboratory for students & community members to learn about environmental conservation, native gardens, and solar energy.

Design & Development of Prairie Classroom:

- **2018-20:** turf grass removed, native plants planted, design for hardscape developed.
- **2020-21:** hardscape, including outdoor classroom area designed & installed.
- **2021-22:** Participation in Illinois Green School project & installation of solar energy system to power stone water fountain & digital display monitor.

When researching solar panels, the students were connected with Dave Wilms, a former teacher who is currently working as a solar consultant. Mr. Wilms was able to arrange for the students to obtain used solar panels that an area high school was removing in order to build a more powerful array. LHS “upcycled” the used solar panels, and they have more than enough capacity to meet the needs of this project.

The LHS team met with the school’s Building & Grounds Director, and with a solar consultant, to determine the best method for installing the solar panels on the school roof & connecting the component parts.

The LHS B & G team will install the panels on the roof, but the students will be responsible for hooking up all the connections to power the battery, charge controller, inverter, digital monitor and courtyard fountain.