

# HANDS-ON ENERGY & SUSTAINABILITY STEM EXPERIENCES IN COLORADO

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## What We Do

**Little Shop of Physics (LSOP)** is a hands-on science outreach program that brings interactive science to kids around the world. This summer, LSOP worked in coalition with **4-H** to give 4-H Extension Agents the opportunity to take the LSOP science experience to **all four corners of Colorado!**

## Why it is Important

Learning the LSOP way makes science...

- More engaging
- **Encourages curiosity & creativity**
- Promotes information retention & problem-solving skills
- **Increases access to science**
- Crosses language & cultural barriers
- Encourages teamwork & collaboration through youth development programming
- **Implements Diversity, Equity, and Inclusion (DEI) Initiatives**



## Soccer Without Borders

During this past summer, LSOP & 4-H had the opportunity to work in Greeley with a program called **Soccer Without Borders (SWB)** that has a target audience of refugee and immigrant families in Weld County. Little Shop and 4-H were invited to participate in a Soccer Without Borders day where youth were **provided opportunities to learn science by doing**. Hands-on science projects as well as guided activities were available to let kids **free-explore and discover** first-hand a variety of scientific concepts & phenomena.

## LSOP & 4-H's Mission

Funded by the **Colorado Rural Electric Association**, LSOP and 4-H's 2021 summer mission was to create hands-on science projects that will be used to **teach Colorado's kids about energy and sustainability**. Projects in the trailers included things that let kids free-explore concepts such as the components of electricity, how electricity is generated, where all energy comes from, how renewable energy works, etc. These projects will be given to 4-H Extension Agents around the state to use with students in even the most rural and hard-to-get-to areas, **making science more accessible to all our youth in this state.**

**REFERENCES:**

- <https://www.lsop.colostate.edu/>
- <https://www.soccerwithoutborders.org/colorado>
- <http://co4h.colostate.edu/>

## What I Learned

- The science outreach process
- How to develop effective science programming for youth
- **More ways to engage youth, especially by finding ways to include their diverse backgrounds**
- Team-building skills
- Professional communication skills

## My Mission & Education

- My mission is to become a **high school science educator**
  - I would like to teach either Physics or Biology
- I want to spread LSOP's philosophy of learning by doing
  - Ultimately, I want to incorporate this into my future classroom
- **My passion is to cultivate a love of science and encourage creativity in every child I teach**
- I will graduate this Spring 2022 with a **Bachelors in Science** with a concentration in Secondary Education
  - I plan to start teaching Fall 2022

## What the Future Holds

Though the end of the summer came quickly, it is not the end of the line for LSOP & 4-H's work. Our hard work in the future will:

- **Be part of 4-H's travelling STEM trailers**
  - Extension Agents can check-out these trailers and take them to rural areas
- **Spread science to both rural and urban populations**
  - May encourage learners in locations previously lacking STEM outreach to potentially pursue a career in STEM
- Promote a **state-wide knowledge exchange** between communities, learners, and agents
  - We learn just as much from the populations we teach as they do from us!

