



# A Sustainable Elementary School for a Better Future

# 20 years

That's how much time humans have to bring down our carbon emissions before much of Earth is uninhabitable.

# Why is a sustainable school necessary?

## Climate Change is Real

- Hotter climate
- More severe storms that are more frequent
- Increased drought
- Rising and warming oceans
- Extinction
- Food shortages
- Elevated health risks
- Poverty and displacement

# We want to keep Earth healthy for future generations.



Friends of the Boundary Waters



Bright Horizons



A World of Traveling with Kids

# Schools Built with Sustainability in Mind

## **Richardsville Elementary, Bowling Green Kentucky**

- First Zero Energy school in the world
- Use enhanced geothermal HVAC system, heat pumps with dual compressors, a demand controlled outside air system, daylighting for every classroom, and an energy efficient lighting system

## **Forest Edge Elementary School, Oregon, Wisconsin**

- First net-zero energy school in Wisconsin
- Largest verified Net Zero School Educational building in North America
- Use solar energy, geothermal wells, battery storage, and electrochromic glass.
- Also have a green roof

# How We Can Make Decorah's New Building More Sustainable

- Add solar panels on the roof
- Utilize geothermal energy for heating, cooling, and electricity
- Have lots of large windows for natural lighting
- Use electrochromic glass
- Energy efficient lighting system
- Battery storage
- Induction stoves
- Electric and energy efficient oven
- More outside time for the students
- A garden outside

Drawing Model  
Time!

Thank You!

# Links

- [Examples of the possibilities of savings w/geothermal energy and grants](#)
- [Wisconsin Net-Zero Energy Schools](#)
- [How Geothermal Works](#)
- [Some Comparisons in HVAC](#)
- [Importance of Daylight in Classrooms](#)