Red Lake Schools

Home of the Warriors

District Vision:

We see a future where each individual is valued, life-long learning is embraced, and students are empowered to become Red Lake ambassadors in the global community.

District Mission:

Cultivate each student's respect for themselves, the culture of the Red Lake Nation and the global community. To offer progressive academic curriculum in a safe and positive learning environment. Provide all students with the necessary tools and life skills to achieve their full potential. Strive to achieve cohesiveness among students, parents, staff, and all the community

Red Lake Secondary School

Grades 6 - 12

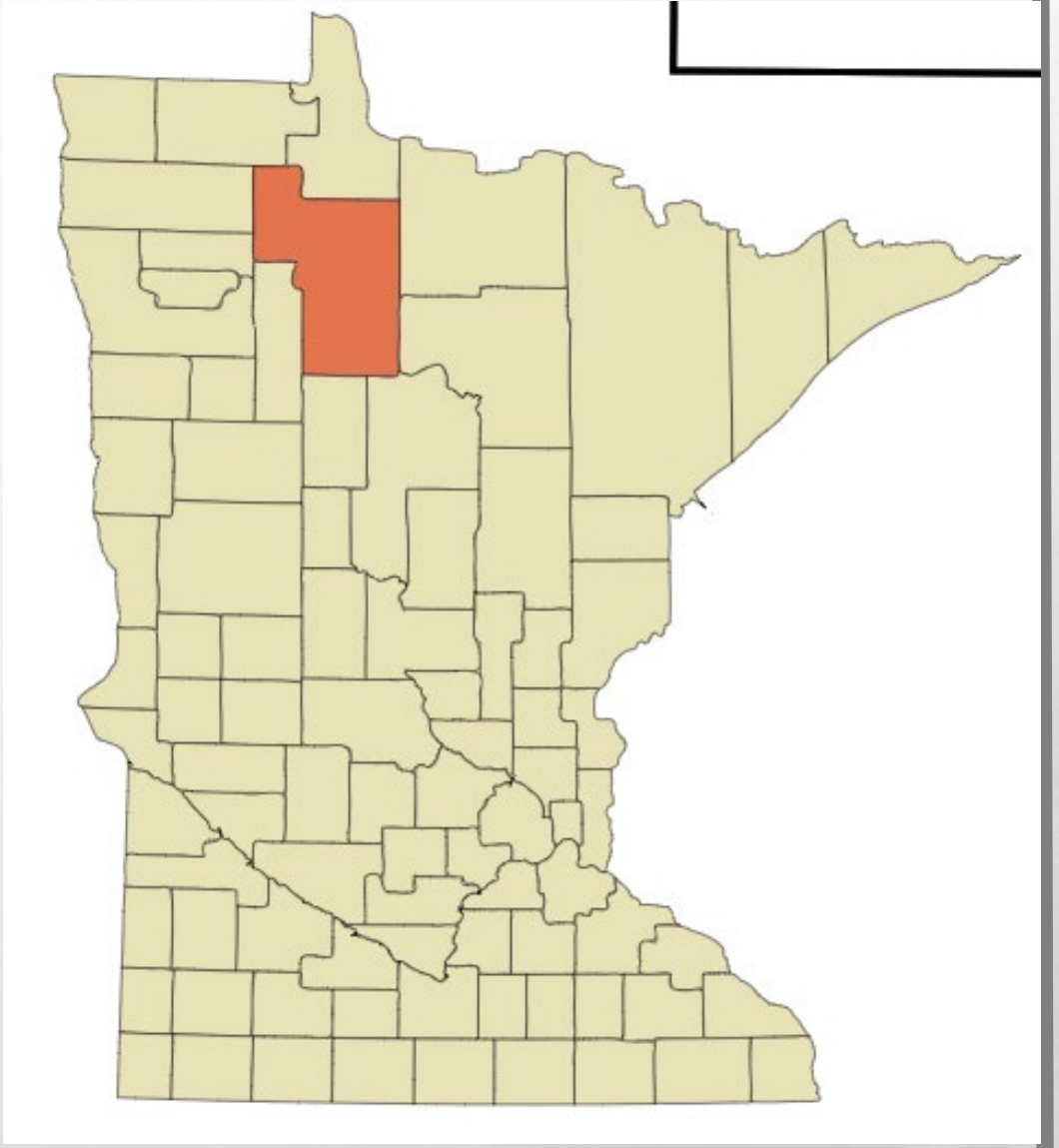
Red Lake Elementary School

PK – Grade 5

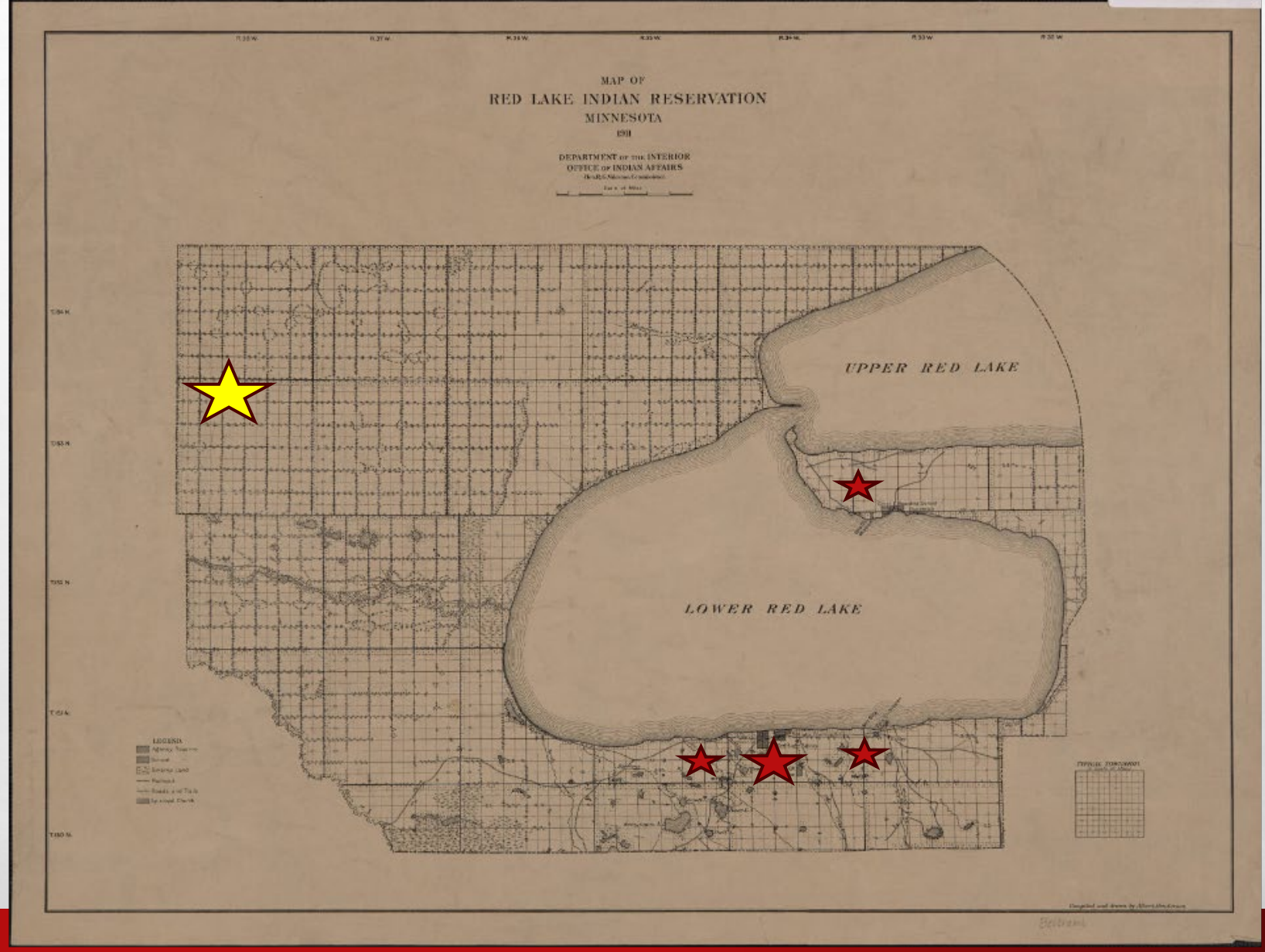
Ponemah Elementary

PK – Grade 8

- The district is 1,014 square miles of land & water
- The district and Red Lake Nation boundaries are contiguous
- Located in Beltrami County less than 100 miles from the Canadian border
- Student body – 99% Native American (Ojibwe)
- District poverty rate is 85%



- Red Lake, Little Rock, Redby, & Ponemah
- Rural & isolated area
- Average route
- Long routes



Electric School Buses

COMMERCE DEPARTMENT
BUSINESS REGULATION


SCHOOL BUS
STOP


STOP

Charging in Bus Garage


9:26
MAJOR EV COMPONENTS
TMS

EPA Clean School Bus Program

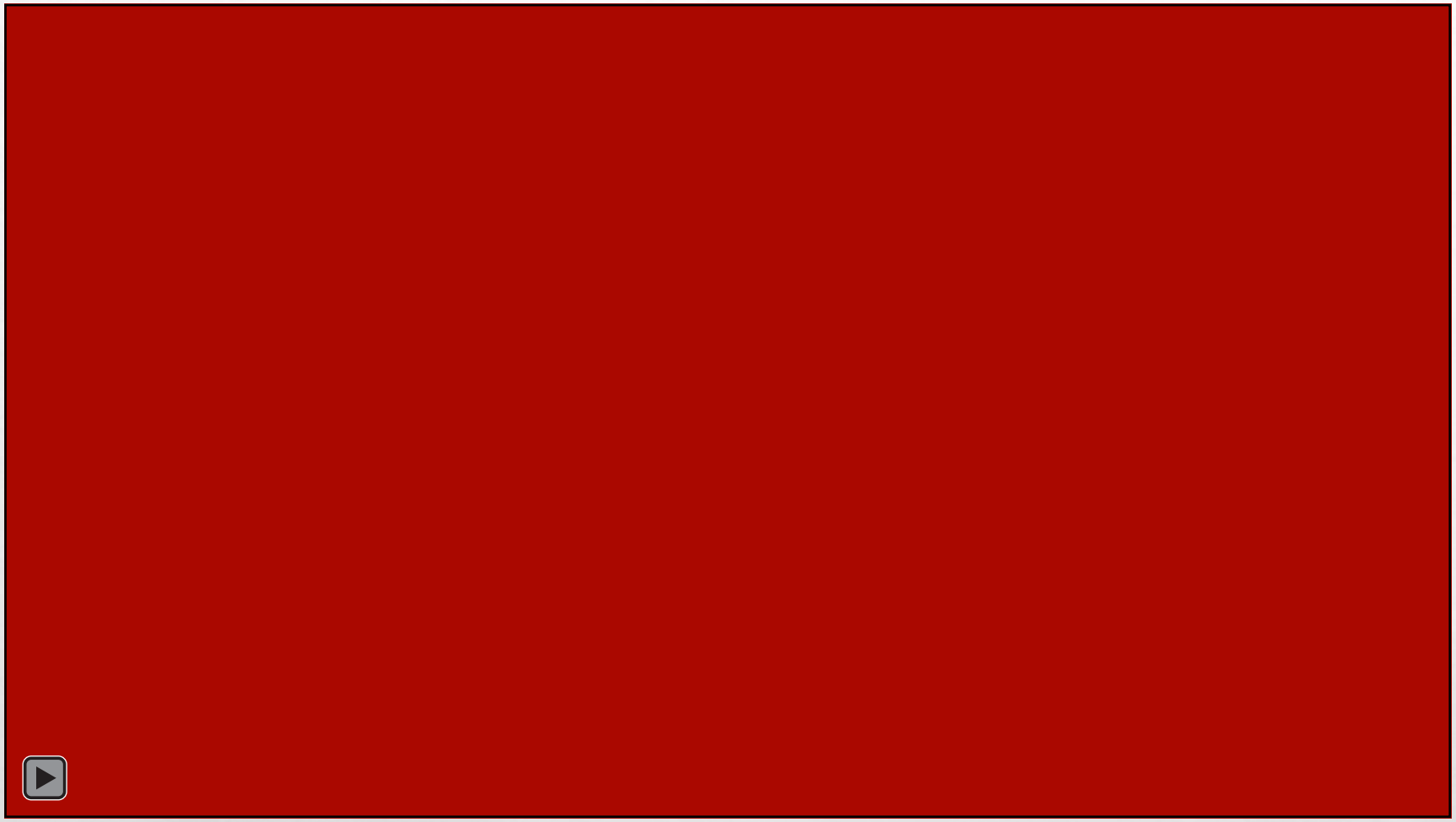
- Simple process
- Developing the RFP was more challenging
- Two bids received
- Selected Highland Electric Fleet Inc.
  - Responsive to our questions
  - Felt like a partnership
  - Bluebird bus
- Timeline

LOCAL RESPONSE

- Student curiosity and engagement
- Resistance to sustainable energy
- Tribal & school board support
- Support from local utility

Sustainable Leadership

- Values of Red Lake Nation
- ISD 38 is a large employer
- Education of staff and students
- Career exploration

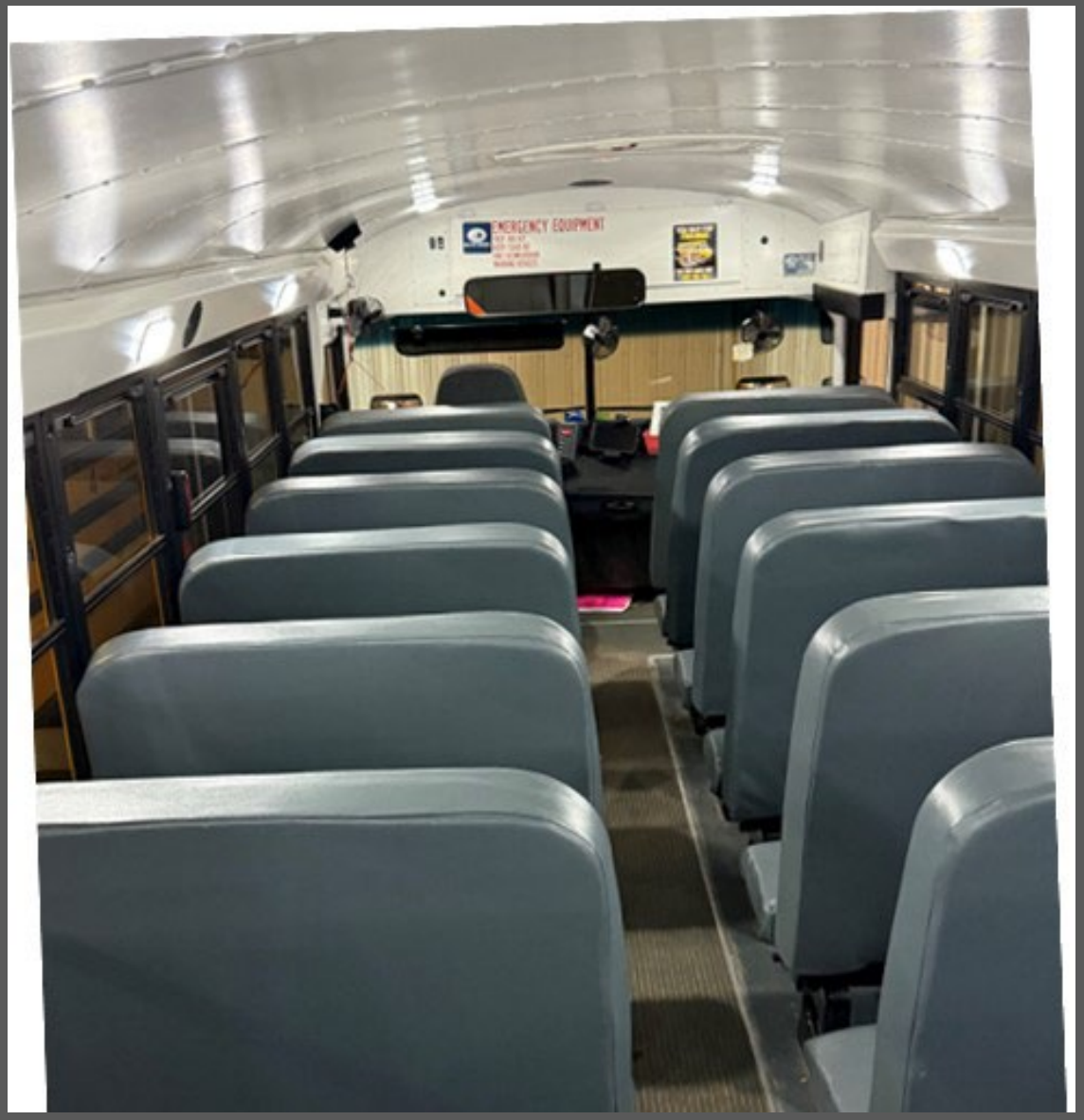


- No emissions!
- No sound!

Student Interest

STUDENT PRIDE & RESPECT

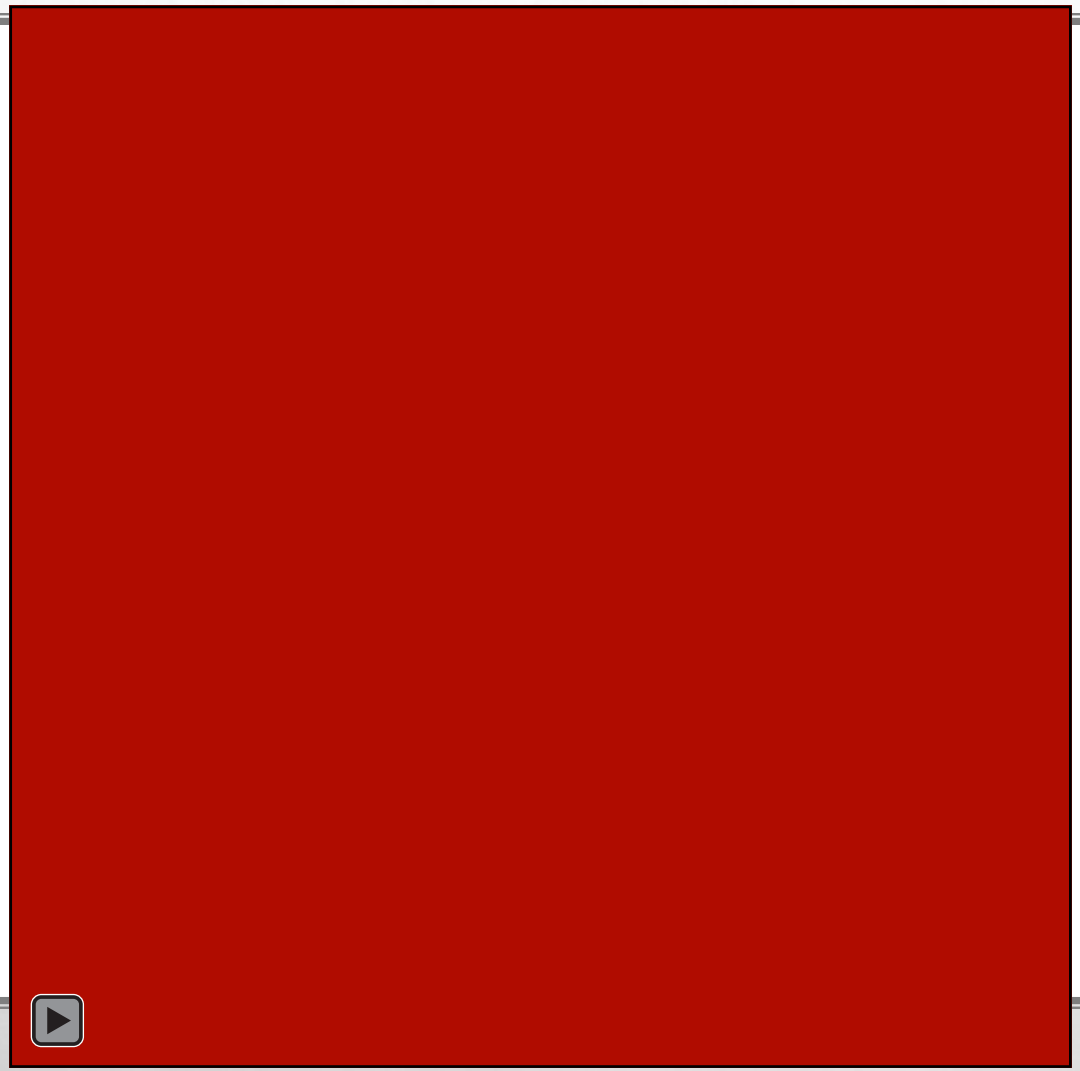

EMERGENCY EQUIPMENT
FIRST AID KIT
BODY FLUID KIT
FIRE EXTINGUISHER
WARNING DEVICES


EMERGENCY EQUIPMENT

Student Pride!

Solar Panels

COMMERCE DEPARTMENT
BUSINESS REGULATION



Ojibwe Translations

Cover: The sun.

Page 1: This is the sun.

Page 2: Every morning, the sun will rise in the east.

Page 3: All day long the sun moves west.

Page 4: Solar panels use the sun to make energy.

Page 5: Look! The sun is casting a shadow.

Page 6: And then the sun is setting in the west.

Page 7: The end.

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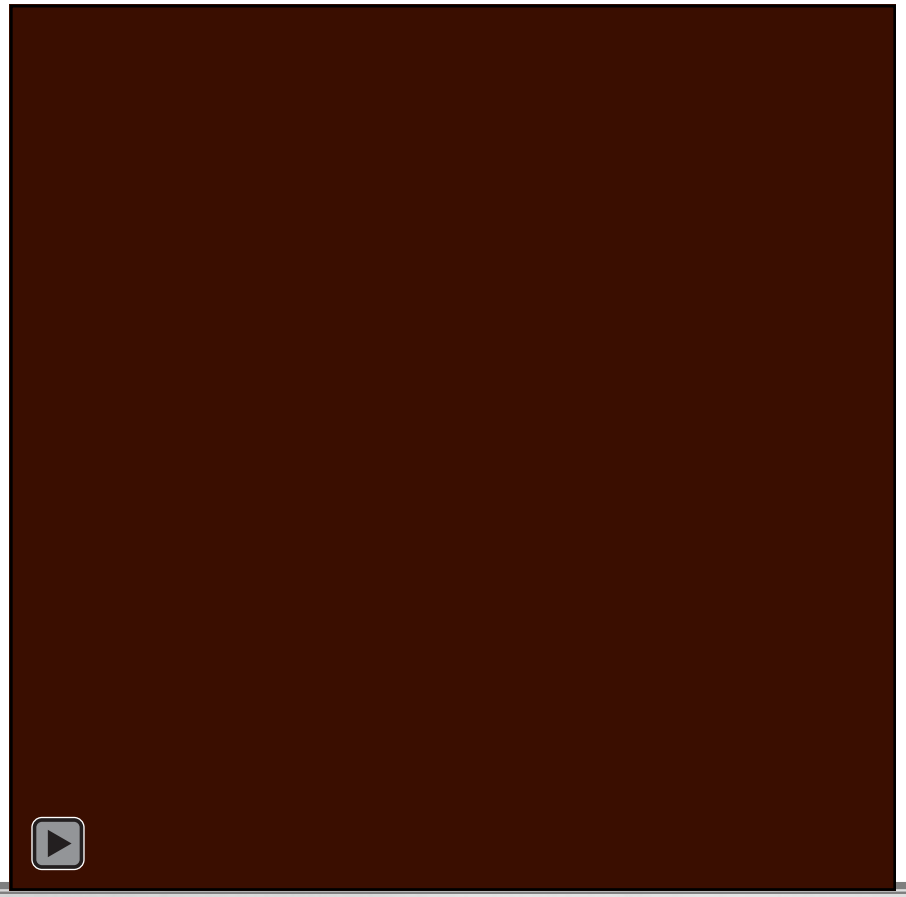


- Ojibwe language curricular video on solar power.

Ojibwe Translations:

Cover: Lets make energy!

Page 1: The solar panels use the sun to create energy.

Page 2: The solar panels are always placed in areas where they are exposed to the best sunlight throughout the day.

Page 3: So when the sun moves during the day, the solar panels are still receiving good sunlight.

Page 4: Solar panels are used to make energy for all kinds of things. Lots of things you may already know!

Page 5: Solar panels can power all of the energy needed to light and heat your house.

Page 6: And even your school too.

Page 7: And even the shopping mall too.

Page 8: They can even power the big building in cities too.

Page 9: Solar panels create jobs for people to make money too.

Page 10: Now, let's talk with your teacher, so you can learn how solar works, too!

GRADE 2 | Anishinaabe Sustainability

LESSON 1

Ezhaad giizis (Where the sun goes)

PREPARING FOR THE LESSON

GOALS

Students will analyze how the sun moves across the sky.

How does sun casting a shadow relate to sustainability?

SEL CORE COMPETENCIES

- Self-awareness
- Social awareness

LEARNING TARGETS *(MN STANDARDS/BENCHMARK)*

*MN Science Standard: 2P.1.1.1.1 **Ask questions** about an object's motion based on observation, that can be answered by an investigation.*

EN Scope and Sequence: 2. Anishinaabe Sustainability (natural and non-natural resources) - Identify traditional natural resources and non-natural resources and how we use them in our lives, and how our usage impacts the community and world positively and negatively; Identify ways in which we can more respectfully use our resources and make a plan to follow through with doing so in our daily lives.

Benchmarks "Students will be able to..." ("I can...")

- I can identify where the sun rises and sets.
- I can talk about one of the importances of the sun in Anishinaabe culture.
- I can identify how the sun moves across the sky.

MATERIALS

- Paper
- Multicolor drawing utensils
  - (markers/crayons/pens/pencils)
- Students' objects of choosing
  - Either brought in from home or something in the classroom.
- Flashlight

Ojibwe Language Objectives "Students will be able to..."

NOTE: giizis (sun) is animate, therefore students will be learning VAI verbs to discuss the sun and its actions.

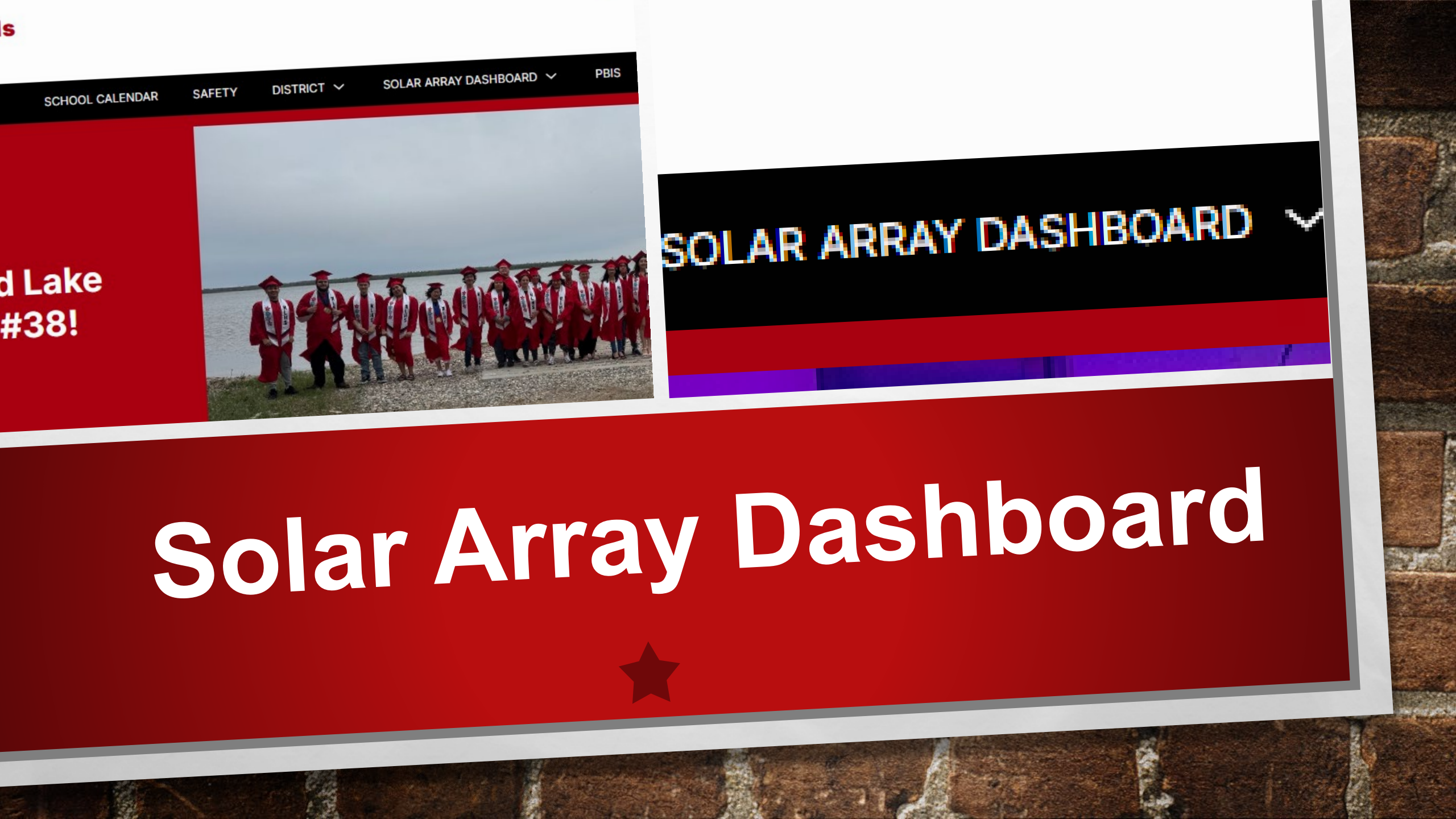
Vocab that students will need to know for lesson:

- Mooka'am (vai) s/he rises
- Bangishimo (vai) s/he sets
- Inikaa / Inishkaa (vai) s/he moves in a certain direction
  - Ex)
    - Ningaabii'anong inishkaa giizis. = The sun is moving west.
- Agawaatese (vai) s/he casts a shadow

Added vocab that students will learn:

- Naabiibii'an (vti) trace it

OJIBWE LANGUAGE CURRICULUM ON SOLAR POWER & ENERGY EQUITY.


SCHOOL CALENDAR
SAFETY
DISTRICT
SOLAR ARRAY DASHBOARD
PBIS
d Lake
#38!
SOLAR ARRAY DASHBOARD
Solar Array Dashboard

Metrics

- Student curiosity and engagement
- Resistance to sustainable energy
- Tribal & school board support
- Support from local utility

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Ojibwe Language curriculum on solar power & energy equity.

Lesson Plan: Solar Energy

Grade Level: High School Physics
Lesson Duration: 51 minutes

Objective:

By the end of the lesson, students will be able to:

- Explain the principles of solar energy and how it is harnessed.
- Describe the photovoltaic effect and how solar panels generate electricity.
- Analyze the advantages and limitations of solar energy.
- Calculate the efficiency of a solar panel using given data.

Materials:

- PowerPoint presentation
- Small solar panel
- Lamp or sunlight source
- Whiteboard and markers

Lesson Outline:

1. Introduction (10 minutes)

- Engage students with a question: *"What are some renewable energy sources you use or see daily?"*
- Show images of solar panels on houses, solar farms, and portable solar chargers.
- Explain why solar energy is important in the transition to renewable energy.

2. Explanation of Solar Energy Principles (15 minutes)

- Discuss how the sun produces energy through nuclear fusion.
- Explain how solar energy reaches Earth and how it is harnessed.
- Introduce the **photovoltaic effect** and how it converts sunlight into electricity.
- Describe the components of a solar panel system (solar cells, inverters, batteries).

3. Hands-On Experiment (15 minutes)

- Demonstrate how a small solar panel generates electricity.

4. Application (10 minutes)

- Guide students through a simple efficiency calculation of a solar panel.
- Provide practice problems for students to solve in pairs.

5. Conclusion and Assessment (6 minutes)

- Ask students: *"Would you install solar panels on your home? Why or why not?"*
- Quiz with calculation problems and key concepts.
- Exit Ticket

OJIBWE LANGUAGE CURRICULUM ON SOLAR POWER & ENERGY EQUITY.

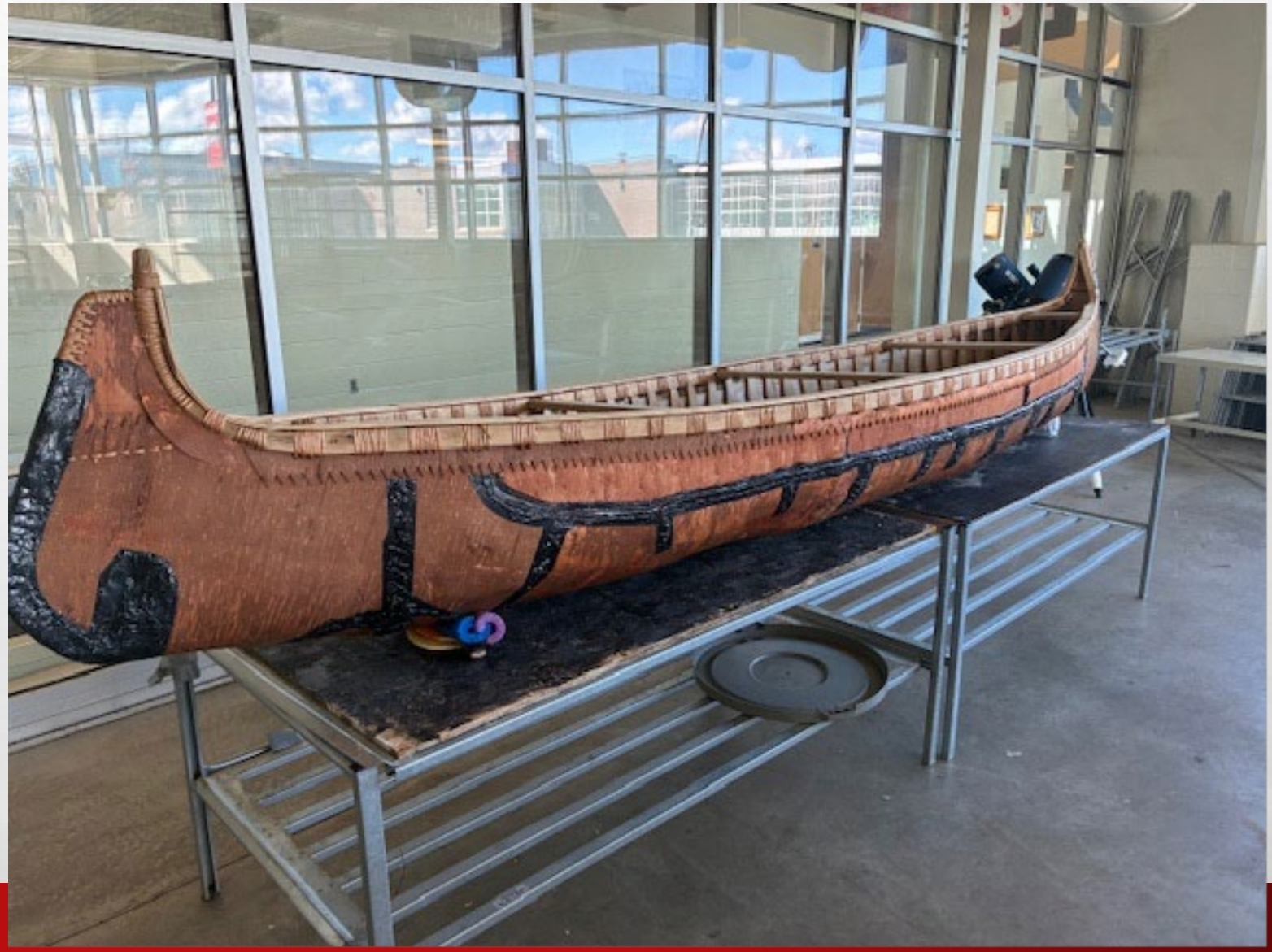
COMMERCE DEPARTMENT

Benefits of Modern HVAC Systems

- Modern HVAC systems enhance indoor air quality.
- Reductions in airborne pollutants, carbon dioxide levels and allergens.
- Fewer student absences and improved learning outcomes (RMI, 2021).
- Proper ventilation helps reduce the spread of illnesses and supports better cognitive performance.
- Better ventilation controls protect valuable artifacts and equipment in our buildings.

Red Lake Elementary Media Center HVAC Upgrade

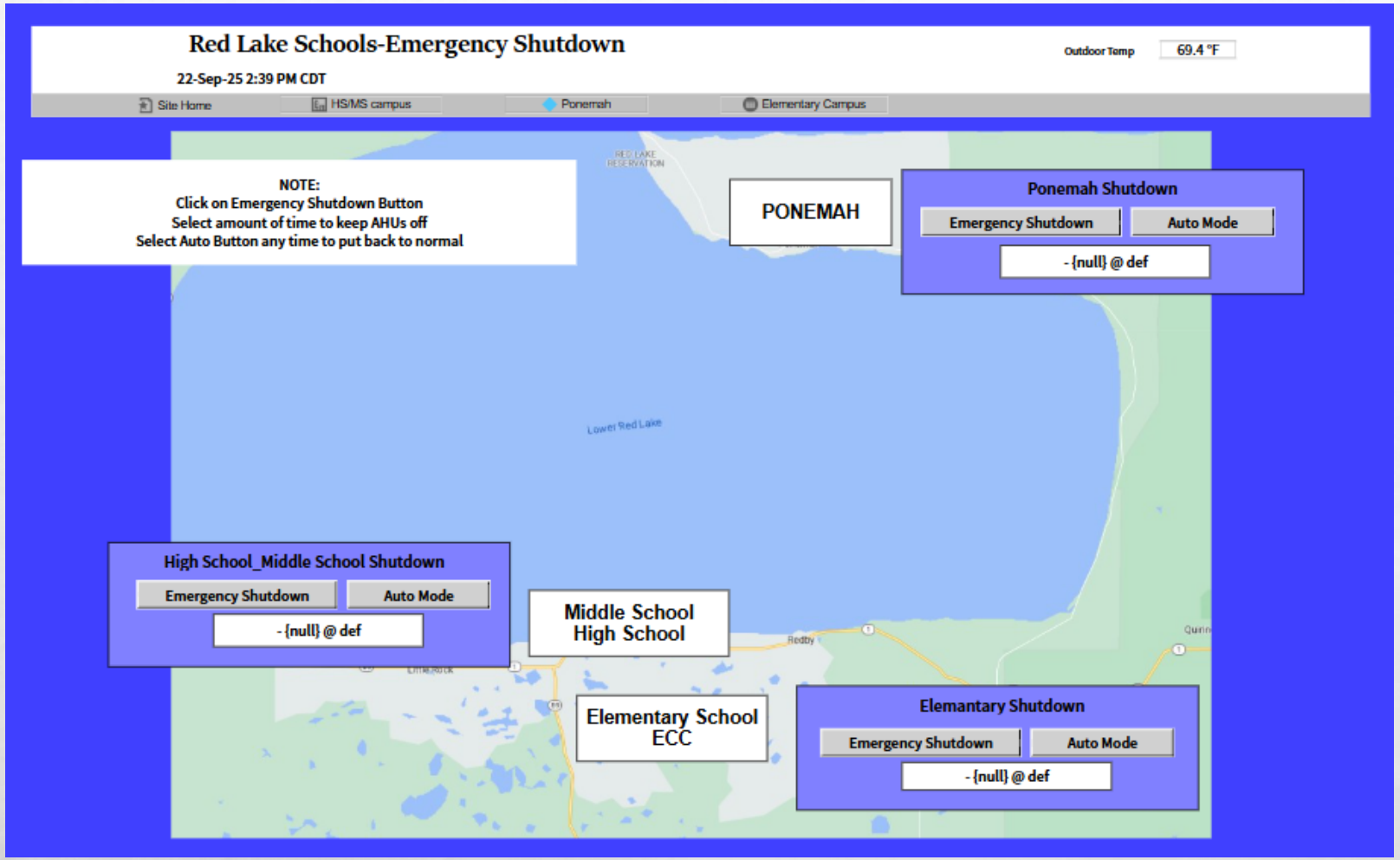
Protecting Cultural Artifacts



MISE

Culture Room

- Student curiosity and engagement
- Resistance to sustainable energy
- Tribal & school board support
- Support from local utility



AHU Shutdown

- Emergency situations
- Graduation Ceremonies
- Assemblies

QUESTIONS?

Contact Information

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