

ELEMENTARY SCHOOL 2020-2021

Energy Efficiency & Conservation Community Building: pre K -1 grade



Title: Energy Scavenger Hunt in My Neighborhood

Objective: Students will identify kinetic energy and potential energy around the house. and learn and identify sources of energy conducting an energy scavenger hunt.

Materials:

- Picture cards,
- bingo template,
- scissors (optional: magazines, articles)

Estimated Time Needed: 60 minutes

Background Information & Vocabulary: Potential energy is stored energy. Kinetic energy is moving energy. The sun is the source of almost all energy on Earth explaining that the sun is a large ball of burning gas in the center of the solar system. The energy that the sun produces is called solar energy. *Fun Fact*: More energy from the sun hits the earth in one hour than the ENTIRE world uses in a year.

Procedures: (for students)

- 1. Watch short video <u>What is Energy?</u>
- 2. With teacher, give examples of potential energy and how it can change to kinetic energy ex. Ball bouncing, bike rolling, rock falling, etc. Students describe or act out examples.
- 3. Print out <u>Bingo sheet</u> and either cut out from <u>sample sources of energy</u> that can be found around the neighborhood from ones provided, from newspapers and magazines, or draw to fill out one Bingo Sheet.
- 4. Conduct a Neighborhood Scavenger Hunt/Bingo game. Take a walk (or drive) around the neighborhood and look for solar panels and sources of energy (check stop lights, street lamps, construction signs, the ground, bus stops, etc.).
- 5. Look for solar panels in at least 2 locations around the neighborhood and identify what the solar panels are powering. *NOTE*: If solar panels are not found, suggest 2 places where they can place solar panels.

Guiding Questions: (for teachers)

- Where do people get their energy from? How about plants?
- What happens when something is low of energy?
- Can you identify other types of energy besides solar energy?
- What's the difference between potential and kinetic energy?

Evaluation: Students share their Bingo cards with examples of energy and highlight any item that uses solar panels.

* Lesson taken in part from Solar United Neighbors SUN patch program



ELEMENTARY SCHOOL 2020-2021

Energy Efficiency & Conservation Community Building: pre K -1 grade



Benchmarks:

PreK - VI. Scientific Inquiry

E. ENVIRONMENT.1. Demonstrates awareness of relationship to people, objects and living/non-living things in their environment

- Benchmark a. Demonstrates how people use objects and natural resources in the environment
- Benchmark b. Participates in daily routines demonstrating basic conservation strategies

- Benchmark c. Identifies examples of organized efforts to protect the environment Kindergarten

muergarten

- SC.K.N.1.1 Collaborate
- SC.K.N.1.2 Make Observations

1st Grade

- SC.1.E.5.4 Identify Beneficial and Harmful Effects of the Sun

Additional Resources:

- <u>Definition of Energy</u> for kids Britannica
- Here Comes the Sun: Crash Course Kids #5.1 video
- Solar United Neighbors Youth Activity Toolkit

Extension: EcoRise Sustainable Intelligence <u>Energy</u>: Lesson 1.3: Touched by the Sun In this lesson, students craft hanging suns that they then use to gather energy—warmth—from the sun. They use their senses to learn about the sun in various contexts, and they recognize and describe ways in which the sun is valuable to us, especially as a source of energy. Students then share what they've learned by decorating their hanging sun to express what we love about the sun.

Access the *Energy* lesson and resources, along with 159 more lessons

by enrolling today at <u>www.ecorise.org/si</u> Questions? Email us at <u>support@ecorise.org</u>



EcoRise inspires a new generation of leaders to design a sustainable future for all. Our schoolbased program empowers more than 100,000 youth each year to tackle real-world challenges in their schools and communities by teaching eco-literacy, design, and social innovation.

SUSTAINABLE INTELLIGENCE CURRICULUM

Through a partnership with Dream in Green, Miami K-12 teachers now have access to EcoRise's Sustainable Intelligence (SI) curriculum at no cost! SI is an engaging, ready-to-use, K–12 curricula that guides students in building a foundation of environmental literacy and sustainability knowledge across seven eco-themes.

SI introduces students to the challenges and opportunities surrounding sustainability and invites them to develop real-world solutions. Through hands-on activities, design challenges, and eco-audits, students cultivate 21st-century skills such as creative problem solving, collaboration, and systems thinking while fostering leadership, empathy, and mindfulness.