Objective

By the end of this lesson, you will be able to build a mini solar house and understand the basic principles of solar energy.

Materials and Prep

Materials needed: cardboard, aluminum foil, glue, scissors, ruler, black paint, clear plastic sheet, and a small solar panel.

Prep: Make sure you have a sunny spot to test your mini solar house.

Activities

1. Design and cut out the shape of your mini house from cardboard.

2. Cover one side of the house with aluminum foil to act as a reflector.

3. Paint the other side of the house black to absorb heat.

4. Attach a clear plastic sheet to the top of the house to act as a greenhouse.

5. Place the small solar panel near the house and observe how the house heats up in the sun.

Talking Points

- When sunlight hits the solar panel, it converts light into electricity. This electricity can be used to power things in our house. Remember, the sun is a powerful source of energy! - "The sun is like a giant battery in the sky!"
- Aluminum foil reflects sunlight, helping to direct more light towards the house. Black paint absorbs heat, making the house warmer. - "Think of the foil as a mirror for the sun!"
- The greenhouse effect happens when sunlight passes through the clear plastic sheet and gets trapped inside, warming up the air inside the house. - "It's like a cozy blanket for the house!"
- By building this mini solar house, you are learning about renewable energy and how we can use the power of the sun to create a sustainable future. - "You're like a scientist exploring the power of the sun!"