GREEN BUILDING ENERGY AUDIT

Science Film Festival

KEYWORDS

energy audit | green building | building efficiency | energy conservation | sustainable construction

Energy auditors and green building consultants inspect buildings to find ways to save energy and improve comfort. They measure how much energy a building uses and look for waste, such as poor insulation, old lighting, or leaky windows. Then they recommend improvements that can lower costs and reduce greenhouse gas emissions. Green jobs in this field help businesses, schools, and homeowners reduce their environmental impact. They also support the construction of new buildings that meet higher environmental standards, contributing to a more sustainable built environment.

AGE RANGE
12-16 years

SMALL GROUPS
(3-4 students)

DURATION
45 minutes

MATERIALS

- Building assessment checklists
- Measuring tools
- Energy efficiency guidelines
- Calculators
- Recommendation templates

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PROCEDURE

1. Conduct energy audit of classroom or school building
2. Assess insulation, lighting, heating/cooling systems
3. Identify energy waste and improvement opportunities
4. Calculate potential energy and cost savings
5. Prioritize recommendations by cost and impact
6. Present audit results with implementation timeline

INSTRUCTIONAL GUIDELINES FOR FACILITATOR

- Focus audit on easily observable building features
- Provide energy efficiency guidelines and benchmarks
- Help students understand building systems basics
- Connect to green building and energy efficiency careers

LEARNING OUTCOMES

- Understand building energy efficiency
- Learn about green building careers
- Practice technical assessment and recommendation skills

EXTENSION SUGGESTIONS

- Conduct home energy audit
- Research green building certification programs
- Interview energy efficiency professionals

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