

GREEN BUILDING ENERGY AUDIT



KEYWORDS

energy audit

green building

building efficiency

energy conservation

sustainable construction

Architects, builders, and engineers working in green construction design buildings that are energy efficient and environmentally friendly. They use insulation to keep homes warm in the winter and cool in the summer, reducing the need for heating and air conditioning. Less energy use means fewer greenhouse gas emissions. Materials like wool, recycled cotton, and sustainable wood can insulate buildings while having less environmental impact than traditional materials. Workers in this field also use smart design features like energy-saving windows, green roofs, and natural lighting. Green jobs in architecture and building help reduce climate change and make homes and workplaces healthier and more comfortable. As countries adopt stricter building codes for energy efficiency, careers in green construction continue to grow.

MATERIALS

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

AGE RANGE

12-16 years

SMALL GROUPS

(3-4 students)

DURATION

45 minutes

CONNECTION TO SDG



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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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