GREEN BUILDING INSULATION TEST

Science Film Festival

KEYWORDS

green building | sustainable architecture | energy efficiency | insulation | 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.

AGE RANGE
6-8 years

SMALL GROUPS
(2-3 children)

DURATION
40 minutes

MATERIALS

- Small cardboard boxes
- Natural insulation materials (cotton batting, wool)
- Thermometers
- Ice cubes

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PROCEDURE

1. Build two identical small cardboard houses
2. Insulate one house with natural materials
3. Place thermometers and ice cubes in both houses
4. Monitor temperature differences over 30 minutes
5. Record which ice cube melts faster
6. Discuss energy-efficient building

INSTRUCTIONAL GUIDELINES FOR FACILITATOR

- Help children understand insulation concepts
- Encourage predictions before testing
- Connect to green architecture and construction careers
- Discuss how insulation saves energy

LEARNING OUTCOMES

- Understand energy-efficient building principles
- Learn about green construction careers
- Practice hypothesis testing and observation

EXTENSION SUGGESTIONS

- Check insulation in your home
- Look for energy-efficient buildings
- Learn about green building materials