



# What is the secret to eco-friendly homes?

## Required materials

- 5 cups
- 5 small cups
- water
- a tablespoon
- wool, cotton fabric, paper/cardboard, hay/straw
- cling film
- 5 rubber bands
- a stopwatch

## 1. Questions before performing the experiment

1. Have you ever noticed that some clothes keep you warmer than others?  
What do you think makes the difference?

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2. Can you name some materials that you think might be good at keeping a house warm in winter and cool in summer?

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## 2. Watch the first video and perform the experiment

Follow the steps outlined in the experiment video.

Draw a diagram of your experiment in the box on the next page.



3. Record your measurements

Fill the table.

Material	Time (min)



#### 4. Observations

Describe what happened during the experiment.

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#### 5. Summary

Summarize the activity by answering the questions: why, what and how.

1. **Why** is it important to study how different materials insulate buildings?
2. **What** did we learn about the insulating capabilities of wool, cotton, hay, paper and air?
3. **How** did we conduct the experiment to test the insulating properties of materials?

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