

A test tube was filled with water from a kettle, and then wrapped in the following materials. It was left for 5 minutes and the following data was recorded:

Material	Thickness (mm)	Start temperature	End Temperature	Temperature change
Wool	5	75	53	
Wool	10	75	60	
Cotton	5	75	42	
Cotton	10	75	47	
Bubble wrap	5	75	64	

1. Complete the temperature changes in the right hand column.
2. Which material is the best insulator? How do you know? Why could this be?

3. Which material has the highest thermal conductivity?

4. How does the materials thickness affect its thermal conductivity? How can you tell?
