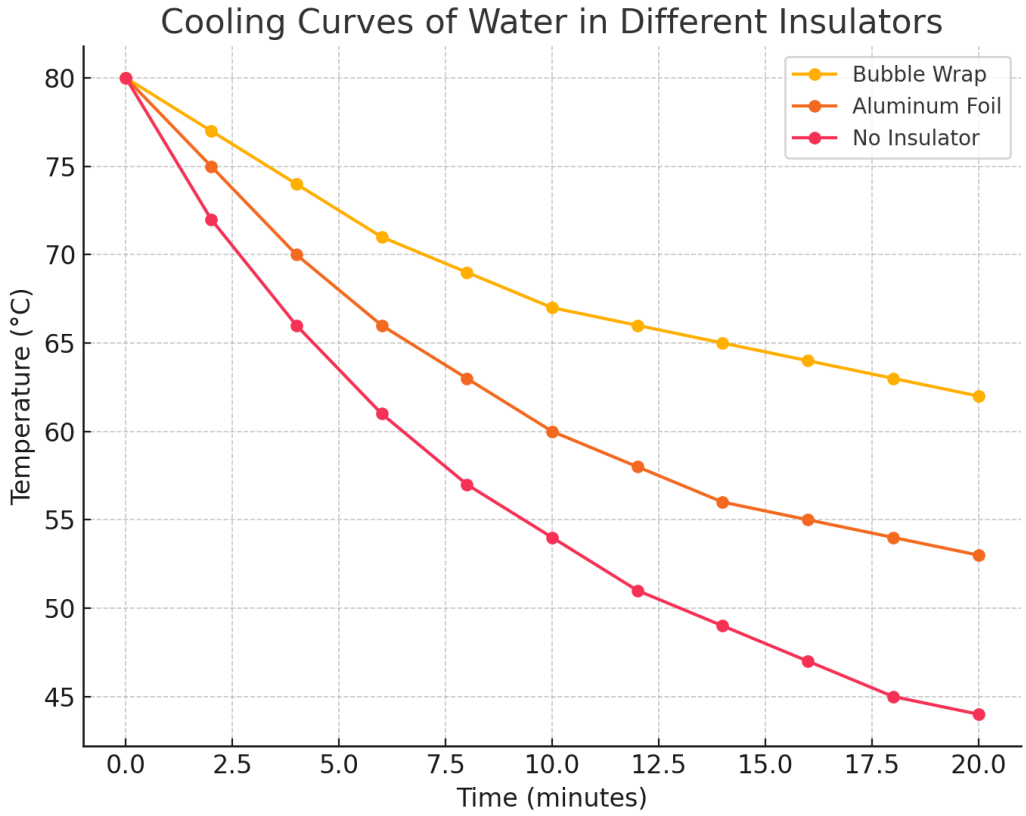
Graphing Exercise: Cooling of Water in Different Insulators

Scenario:

Three cups, each wrapped in a different insulating material, are filled with the same amount of hot water. Temperatures are measured every 2 minutes for 20 minutes. Your task is to graph the data and analyze which insulator worked best.



Questions:

1. Which cup kept the water warmest the longest?

2. How can you tell from the shape of the graph?

3. What might explain the differences in the cooling rates?

4. If you were to design a thermos, which material would you choose and why?