

## Build A Thermos

You are tasked with designing a thermos/cup that can keep 250 ml of water the warmest for 30 minutes. This project is worth **30pts**. If your cup keeps the water the warmest for 30 minutes you will be rewarded **10 bonus points**. If you come in second you will be rewarded **5 bonus points**.

### **Constraints:**

1. Must fit in your teacher's hand
2. Must hold 250 mL of hot water
3. Be structurally sound (doesn't easily fall apart)
4. No part of your container may be permanently altered as a result of the final test (your results must be repeatable without changing your container.)

### **You May:**

- Use a plastic/glass/ceramic cup as the core
- Use any materials at home (aluminum foil, cloth, cotton balls, paper) as long as they obey the "May NOT" section
- Use store bought material if you can not find anything at home to use.

### **You May NOT:**

- Use a thermos/travel mug as the core
- Use materials only accessible to research laboratory personnel.