

## Which Material Keeps Water Warm the Longest?

### Introduction

We chose this topic because it made us wonder about what materials will keep warm water insulated. We thought about our lunchboxes, we use insulated thermos if we have soup, hot chocolate, coffee, pasta, and lots of other things, investigating material keeps warm water warm longest investigating because we want to find out which material keeps warm water warm longest.

**Method:** first we got all our materials, then we poured the water in our glasses to make sure it was the right amount, we used measuring cups and thermometers to help us observe and measure, we have the right amount of materials around each glass so it was all fair.

Fabric	Aluminium foil	Paper towel
Nothing		

### Problems and solutions:

We were going to use wool but when we got the wool, we realised it will take too long and it was too tiny because it was in strands and a ball, so we use our solution brains and decided to take out wool out of our experiment.

### Data

We collected data by doing a survey and by recording the timing. We recorded other data by one clipboard and asking people which material do you think will keep boiling water warm the longest? Each 5, 10, 15 and 40 minutes we looked at the thermometer and wrote down the temperature. we asked 22 people in kindergarten and year three but only some.

Fair and not fair

Fair

1 same amount of water

1. Same Size of glass
2. Same temperatures

Not fair

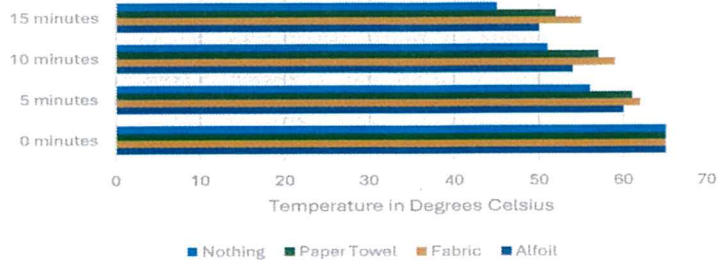
1 the timing when we put the water in the glass so it could be a little bit colder

2 we stop the timer but we went supposed to so it's a couple of seconds off

3 We put a hands on on the glass so we could read this a thermometer and I think we made it a little hotter

**Conclusion:** in this experiment we discovered that fabric kept the water warm longest only decreased by 23° over 40 minutes (65-42). The biggest difference in temperature was the 23 degrees. The most by 23°. (65-35)

Which material keeps warm water warm the longest



### Materials:

- Warm water
- Fabric
- Tin foil
- Toilet paper.
- Nothing
- Cups
- Measuring cups
- Elastic bands

### Hypothesis

I think tinfoil will keep the water the warmest because it is thick and metal and it keeps water a bottle cold or warm.

Water	0 min	5 min	10 min	15 min	40 min	
Tinfoil	65	60	54	50	38	65-38=27
Paper towel	65	61	57	52	39	65-39=26
Fabric	65	62	59	55	42	65-42=23
Nothing	65	56	51	45	35	65-35=30