Pre-Experiment

Data For Science Fair

Temprature at Start: 85°C

15 minutes later: 55°C

Room Temperature: 22度
This has to be kept the same

30 minutes Later: 45°C

Objective: Get the water to under 45°C in the least time as possible.
The reason? Your trids won't take so long

First 15 minutes dropped it by 30°C.
The second time only dropped 10°C. Wonder why

~~Negative Experiment~~ Fake experiment

Data for Science fair

Time Passed: 30min
Temp when started: 85°C
Temp at end: 62°C

Objective: Figuring out the right time for the experiment

Observations: Water level lowered. Stayed pretty warm. Shirt got wet from the steam

$$\begin{array}{r} 85 \\ -\ 62 \\ \hline 23 \end{array}$$

Qualitative

Water level lowered

Sleeves were wet

Quantitative

62°C 30min
Start 85°C
Lost 23°C

Negitive Control

Science Fair Data

Room Temp: ~~30°C~~ 21°C
Time Passed: 30 min
Stuff in box: None
Starting Temp of water: 85°C
Water at end should be around 40°C ← hypothesis

Results:

After looking at Data, this is an outlier. We will REDO IT

Waterlevel lowered

Trial 1: ~~44.6°C~~ 44.6°C

~~Trial 2: 50.4°C Condensation in box~~

Trial 3: 42.5°C Slight condonsation

Trial 4: 41.7°C Slight condonsation

Trial 5: 45.0°C Slight condonsal. Slight water level change

Trial 2
45.1°C

Hypothesis

Nothing : 40
Wool : ~~[illegible]~~ 70
Cotton: 60
Jean : 52
Flannel : ~~[illegible]~~ 61
~~[illegible]~~ Polyester : 62

I think warmest one will be wool, at 70°C. Then Polyester at 62°C. Next, Flannel, at 60°C and following, cotton at 58°C. And then jean will come 2nd to last at 52°C. Last place is nothing, which I'm guessing it's going to be around 40°C. This is my Hypothesis!

Kakrat

Negitive Control

Data Collection

Trial 1 44.6°C
Trial 2 45.1°C
Trial 3 42.5°C
Trial 4 41.7°C
Trial 5 45.0°C

Mean

44.6	41.7	132.2
45.1	45.0	086.7
42.5	86.7	218.9
132.2		

43.78
5 | 218.9
20
19
15
39
35
40

43.78

Median

41.7 42.5 44.6
45.0 45.1

44.6

Mode

45.__°C

we can't look at decimals

Wool

Science Fair Data

Room Temp: 21°C
Time Passed: 30 min
stuff in box: Wool
starting Temp of water: 85°C
Water at end should be around 55°C
Hypothesis

source of error: Norming

Results:

Water level lowered
Shirt got wet

Trial 1: ~~53.5°C~~ 61.4°C Lots of condensation

Trial 2: 61.5°C lots of condinsation, shirt got wet, water level lowered

Trial 3: 65.4°C small amouts of condinsation, shirt got a little wet, water level lowered a little

Trial 4: 64.7°C little condonsatio, wet shirt, water level lowerd a little

Trial 5: 67.2°C little condonsation, shirt wet, water level lowered

We didn't do this properly.
we will REDO.

NEW: 61.4°C

~~Flannel~~ Flannel

Science Fair Data

Room Temp: 21°C
Starting Temp of water: 85°C
Stuff in box: Flannel (55% cotton 45% Viscose
Time Passed: 30 min
Water at end should be around 50°C.
HYPOTHESIS

Results:

Trial 1: 63.7°C Condensation slight watter level lowered

Trial 2: 63.8°C condensation, slight water level lowered, shirt is wet

Trial 3: 59.9°c condensation, water level lowered, shirt is wet

Trial 4: 63.5°C condensation, shirt's wet, water level lowered, steam, water level is lowered,

Trial 5: 61.4°C condensation, water level lowered, shirt is wet

Source of error: We locked the box cuz material would not fit. Haha (For Trial 1) ~~[illegible]~~

WHY?

Why did you bring a METAL box?

- Good size
- Won't change / Destroyed
- Fits materials Properly
- Easy to wipe condensation

Why did you pick the jar you did?

Jeans

Science Fair Data

Jeans - 98% cotton
2% spandex

Room Temp: 21°C
Temp of water at start: 85°C
Temp at end: 61.2°C - This is Trial 1
Time Passed: 30 min

Results Trial 1: 61.2

Trial 2: ~~55~~ 59.9°C slight condonsation

Trial 3: 60.2°C slight condensation, water level lowered

Trial 4: 60.2°C slight condongation, shirt wet, water level lowered

Trial 5: 61.1°C condonsation, wet shirt water level stayed the same

Sources of error: <u>Really</u> tightly packed, opened box 0.3 of a second early, Time was a little weird (measuring issue),

Scores are TIGHT

Polyester Facts:

- Man-made material
- Cheap to make
- Doesn't shrink

Polyester

Science Fair Data

Temp of room: 21°C
Temp of starting water: 85°C
Time passed: 30 minutes
Stuff in box: Polyester 100%
Water at end should be around 62°C
Hypothesis 63.9°C

Results: Pad wraped.
Low score, RED

Trial 1: 67.8°C condonsation, wet, water level lowered

Trial 2: 68.4°C condonsation, water level lowered, shirt soaked

Trial 3: 64.4°C condonsation, water level lowered shirt soaked, steam

Trial 4: 69.8°C condonsation, soaked shirt, water level lowered, box wet,

Trial 5: ~~65.7°C~~ 65.9 condonsation shirt's wet, water level lowered, faint steam

Source(s) of error: Opened 0.1 of a second early to remove material

cotton

Science Fair Data

Temp of room: 21°C
Temp of water at start: ~~3~~ 85°C
Time Passed: 30 minutes
Stuff in box: Cotton
Water at end should be around 64°C
Hypothesis

Results:

Trial 1: 61.9°C condensation, shirt wet, water level lowered

Trial 2: 61.1 °C condensation, wet shirt, water level lowered, steaming

Trial 3: 61.4°C condensation, soaked shirt, water level lowered, steam

Trial 4: 59.1°C condensation, socked shirt, water level lowered, steam

Trial 5: 60.8°C condensation, steam, wet shirt, water level lowered, water is a little cloudy at ~~top~~ wonder why

Source(s) of error: Opened box 0.1 of a second earlier??

Woo! Data Analysis

Trial 1: 61.4

Trial 2: 61.5

Trial 3: 65.4

Trial 4: 64.7

Trial 5: 67.2

Mean

61.4
64.7
67.2
193.3

61.5
65.4
126.9
320.2

64.04
5 / 320.20
30
20
20
0

64.0

Median

Mode

64.7

We don't use decimals for the mode

61

Science Fair Box & Jar Size

Box: 16.5cm wide 20cm long 12 cm tall. Lid: 2 cm Box: 10cm. Add: 12cm

Jar: Volume: 150 ML