**Design Sketch**

How your design will slow thermal energy transfers.



**Thermal Energy Transfer**

How thermal energy was transferred to the can.



 **Name: Hour:**

**Improvements** - Rough Draft

Think about how you would improve your design. Take ideas that you have from your testing, along with what you learned by observing others, to write a paragraph explaining at least two changes you would make and the reasoning behind them. This should be written in paragraph format that includes many details.

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|  |

**Data Chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | 0 min. | 5 min. | 10 min. | 15 min. | 20 min. | 25 min. | 30 min. |
| Experimental Can Temperature (°C) |  |  |  |  |  |  |  |
| Control CanTemperature (°C) |  |  |  |  |  |  |  |

**Change in Temperature**

Experimental Can: \_\_\_\_\_\_\_ °C

Control Can: \_\_\_\_\_\_\_ °C

**Graph**



Cold Can Challenge

Display Checklist

* Title and names of all group members
* Design Sketch
	+ Include all material used and why you used them to slow thermal energy transfers
	+ Include words such as insulator, conductor, absorb, and reflect
* Data Chart and Graph
	+ Data recorded
	+ Title for graph
	+ X and Y axis labeled
	+ Appropriate scale for each axis
	+ Line graph for experimental can and control can
* Thermal Energy Transfer - Explanation and drawing of how the thermal energy was transferred to the can
	+ Include radiation, conduction, and convection in your explanation
	+ Include areas of the box that transferred heat through radiation, conduction, or convection
* Improvements - Changes for the future to improve your design – added after presentations

**Improvements** by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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