Type of Insulation Lab

Task: A plastic water bottle will be wrapped in the material. The water bottle will be filled with hot water. The temperature of the water will be taken in 5 minute intervals. The experiment will be repeat with the material wet.

Personal Group Data

Material Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dry Data

|  |  |
| --- | --- |
| Time | Temperature – Celsius |
| O minutes |  |
| 5 minutes |  |
| 10 minutes |  |
| 15 minutes |  |
| 20 minutes |  |
| 25 minutes |  |

Wet Data

|  |  |
| --- | --- |
| Time | Temperature – Celsius |
| O minutes |  |
| 5 minutes |  |
| 10 minutes |  |
| 15 minutes |  |
| 20 minutes |  |
| 25 minutes |  |

Class Data

|  |  |  |
| --- | --- | --- |
| Material type | Dry temperature loss | Wet temperature loss |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Discussion Questions:

|  |  |
| --- | --- |
| What material insulated best dry? | Wet? |
| What material insulated worst dry?  | Wet? |

|  |  |
| --- | --- |
| What types of material would be best to wear on a cold **dry** weather outing? |  |
| What types of material would be best to wear on a cold **wet** weather outing? |  |

|  |  |
| --- | --- |
| What types of clothing wear not tested today that would be important to wear on a winter outing? |  |