**Title: To compare the ability of different metals to conduct heat**

**Date:**

**Equipment:** tank with 4 metal rods attached, Bunsen, wax, thumbtacks

**Method:**

1. Use the apparatus shown which consists of a tank of water with four different metal rods sitting in the water.
2. Place some candle wax at the end of each metal and place a thumbtack in the wax at the end.
3. Light the Bunsen under the water and heat the water. Note the order in which the thumbtacks fall.

**Results:**

The thumbtack which falls first was on the best conductor.

Copper was the best conductor. Steel was the poorest conductor.



Title: To show that dark materials are better radiators of heat than shiny materials.

**Date:**

**Equipment:** Two cans, graduated cylinder, thermometer, lid

**Method:**

1. Take two identical metal containers and paint one with one black and the other silver.
2. Fill both with hot water.
3. Using a thermometer and stop-watch note which container cools the quickest.

**Results:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | 0 min | 2min | 4min | 6min | 8min | 10min | Difference |
| Shiny |  |  |  |  |  |  |  |
| Dark |  |  |  |  |  |  |  |

The dark container cooled more quickly because it is a better radiator of heat.