**I’m Melting**

**STATEMENT OF THE PROBLEM**

If I put three different types of crayons of three different colors in the oven at 170 degrees F, will they melt at different speeds?

**RESEARCH**

Crayola crayons are mostly made of paraffin wax and color pigment. Cra-Z-Art crayons may be made of soybean oil instead of paraffin. Washable Crayola crayons work on dry-erase boards. The melting point for Crayola crayons is 105 degrees F All Crayola Crayons are made the same way, except for the “special crayons”, which they modify the process to make.

http://www.crayola.com/faq/science/can-you-provideinformation-about-crayons-for-a-science-fair-project/ <http://www.answers.com/Q/are_cra-zart_crayons_made_of_soybean_oil_or_wax>

**Hypothesis**

If I put three different colors of three different brands of crayons in the oven at 170 degrees F, then the Crayola will melt the fastest, the Crayola Washable will melt next, and the Cra-Z-Art will melt last because they are all made of different materials, and the less waxier one seems more likely to stay solid longer.

**MATERIALS**

* Different types of crayons (doesn’t matter what)
* 3 different colors of each type of crayon, a white, a black, red.
* An oven, A hot pad, or a small towel
* A cookie sheet
* A sheet of wax paper
* A permanent marker (optional)
* A timer
* A piece of paper and pencil
* Camera (optional)

**PROCEDURE:**

**STEPS**

1. Select 3 different brands of crayons.

2. Preheat the oven to 170 degrees F

3. Get cookie sheet and line it with wax/ parchment paper.

4. Use a sharpie to label the crayons.

5. Put the crayons in the oven. Give them a minute to warm up, and then keep it in the oven.

6. Take pictures after every 2 minutes.

7. Check the crayons to see which one starts melting first

8. Record on paper

9. Repeat steps 5-7 until one or more of the crayons are completely melted.

**VARIABLES**

**Constants**: Oven temperature, time between each measurement

**Controlled variables:** Comparing against each other

|  |  |  |  |
| --- | --- | --- | --- |
|  | CRAYOLA | CRAZ-ART | CRAYOLA  WASHABLES |
| 2 minutes | No change | No change | No change |
| 4 minutes | Slight melting of white | No change | No change |
| 6 minutes | Red melting faster | Red melting faster | Red melting faster |
| 8 minutes | All crayons completely melted | All crayons have thinner composition. | All crayons thinner but not melted. |

**Results**

**Conclusion**

Our hypothesis was partially correct. The Crayola melted the fastest whereas, the Cra-Z-Art was second and the Crayola Washable was last.

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