**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per. \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**The Density of Crayons**

Most of us do not play with crayons near a tub of water, but did you know that some crayons sink while others float? Why does that happen?

1. Crayons are all made of the same substance – wax – so what do you THINK causes them to sink or float?
2. What property of matter can we measure that can predict whether they will sink or float?
3. What tools and processes will you need to use to calculate whether they will sink or float?

Procedure:

1. Use 5 different colored crayons for your experiment. Remove the paper after you record the crayon color.
2. Use the chart below to record your measurements.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Crayon Color** | **Mass** | **Volume**  **First Water Level: Second Water Level: Difference:** | | | **Density** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Use the information on the chart above to calculate the density of each crayon.
2. Go to <https://isenseproject.org/projects/1419> and manually add your data to the project. You only need to add the crayon color and density.
3. Go to the visualization tab. Choose bar graph. Group by crayon color. Change the colors of the bars to coordinate with the color of your crayon, as close as you can. Save this visualization. Now group by outcome. Save this visualization.
4. Which of the visualizations (graphs) best demonstrate what you learned about the densities of the crayons? Save and print this graph and attach it to your sheet.