Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hands-On Activity: Percent Error Casey Sutton

**Objective:** Build an understanding of Percent Error.

**PART I: Discovering Percent Error**

**Step 1:** Measure and Record the dimensions of the Starburst package (in inches).

|  |
| --- |
| **Starburst Package Dimensions (in inches)** |
| Length |  |
| Width |  |
| Height |  |

**Step 2**: Find out how many packages of Starburst does it take to fill up the box you are working with?

|  |  |
| --- | --- |
| **Box Type** | **Number of Starburst Packages** |
| Cinnamon Toast Crunch Box |  |
| Fruit Bar Box |  |

**Step 3**: Determine the volume of your box by $Volume of Starburst ×Number of Packages$

|  |  |  |
| --- | --- | --- |
| **Type of Box** | **Calculations** | **Final Answer** |
| Cinnamon Toast Crunch |  |  |
| Fruit Bar Box |  |  |

**Step 4:** Measure the length, width and height of your box using a ruler.

|  |  |
| --- | --- |
| **Dimension** | **Measurement of Dimension** |
| Length |  |
| Width |  |
| Height |  |

**Step 5**: Calculate the Volume of your box using the volume equation, $V=L×W×H$

|  |  |  |
| --- | --- | --- |
| **Type of Box** | **Calculations** | **Final Answer** |
| Cinnamon Toast Crunch |  |  |
| Fruit Bar Box |  |  |

**Step 6**: What do you notice about your answer in step 3 and step 5? What do you think this says about the volume of your box?

|  |  |
| --- | --- |
| **Type of Box** | **Observations** |
| Cinnamon Toast Crunch Box |  |
| Fruit Bar Box |  |

**PART II: Percent Error**

Step 1: Use the information you discovered in PART I, to calculate percent error.

**Make sure to use the equation** $\frac{\left(Experimental Value\right)-(True Value)}{True Value }×100$

|  |  |  |  |
| --- | --- | --- | --- |
| **Experimental Value** | **True Value** | **Calculations** | **Percent Error** |
|  |  |  |  |
|  |  |  |  |