**Mass Masters Student Station Lab Activities**

**Station One: Mass Predictions**

You will be measuring the mass of some objects using gram stackers. First you will predict which objects match the mass shown below. Then you are to measure the objects to test your prediction.

|  |  |  |
| --- | --- | --- |
| Mass | Prediction | Actual Object |
| 20 grams  |  |  |
| 7 grams  |  |  |
| 190 grams |  |  |
| 66 grams |  |  |

**Station Two: Mass Sum and Difference**

You will measure five items using a doctor’s scale and determine the total mass. Then you will determine the difference between the heaviest and lightest objects.

**Measuring Mass**

|  |  |  |
| --- | --- | --- |
| Item/Object | Mass (kg.) | Mass (gm.) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **TOTAL** |  |  |

1. Smallest mass\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (kg.) Largest mass\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (kg.)
2. What is the difference in kilograms between the largest mass and the smallest mass?
3. What is the difference in grams between the largest mass and the smallest mass?

**Station Three: Sharing Chocolate**

Ms. Perales has 2 kilograms of chocolate to share with 8 students who have perfect attendance. How much chocolate in grams does each student get?

Use your reference chart to find the conversion between grams and kilograms and model this problem using base ten blocks.

**Station Four: Backpack Challenge**

An average 4th grader has a mass of 36 kilograms. Experts recommend that students carry no more than 6 kilograms in their backpacks. Measure the different items that you could possibly put in your backpack. Choose which items to pack making sure not to exceed six kilograms.

|  |  |
| --- | --- |
| Item/Object | Mass (kg.) |
| 1)  |  |
| 2) |  |
| 3) |  |
| 4) |  |
| 5) |  |
|  | **TOTAL** |