$\qquad$

## Mass Review

## What is mass?

Mass is the amount of matter in an object. We can get an idea about the mass of an object by lifting it up.


In order to measure mass, we need a unit of measure. Common metric units of mass are the gram (g) and the kilogram (kg). A kilogram is 1000 grams. We measure the mass of small objects in grams and the mass of large objects in kilograms.

We can find the mass of an object using the two-pan balance.

Michael used the two-pan balance to find the mass of his calculator. His standard masses have a mass of 1 gram and 10 grams. He found the mass was 92 grams.
I. Use a two-pan balance to find the mass of at least

four objects. Record your results in the data table below.

| O <br> Object | $\boldsymbol{M}$ <br> Mass (in <br> unit |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |

Use your data to answer the following questions. Sometimes, you will have to collect more data to provide an answer.
2. Which object has the most mass?
3. Which object has the least mass?
4. Compare the mass of the objects from Questions 2 and 3 using words or number sentences.
5. Choose any two of your objects, and use your data to predict the total mass of those two objects together.
A. Write down the mass of each object and your prediction for the total.
B. Use the balance to find the actual mass of the two objects together.
C. Was your predicted mass close to the actual mass? How close?
6. A. Put the object with the most mass in one pan. Put the object with the second largest mass in the other pan. Predict how much mass you will have to add to the lighter side to get the pans to balance. Write down your prediction.
B. Check your prediction by adding mass to the lighter side until the pans balance. Write down the actual number of grams you added to the balance. Is the actual number close to your prediction?
7. Were any of your predictions different from your actual results? On a separate sheet of paper, discuss why that might have happened.

