Unit 4 Module 1 Session 5

Problems & Investigations-Measuring Mass

Getting Ready-

- 1 Pan Balance Scale (additional pans if available)
- Plastic Cubes (20 Gram cubes per pair of students, plus 50 gram cubes in a zip-top bag)
- 15 one-Quarter Pound Sticks of Modeling Clay (See Preparation)
- 20 Regular Paper Clips Per Pair of Students
- 10 Boxes of 100 Regular Paper Clips
- Chart Paper/Markers

Vocabulary

Gram (g)

Kilogram (kg)

Mass

Metric System

Pan Balance Scale

- Estimate and measure mass in grams and kilograms; solve story problems involving addition and subtraction of mass measurements given in grams and kilograms

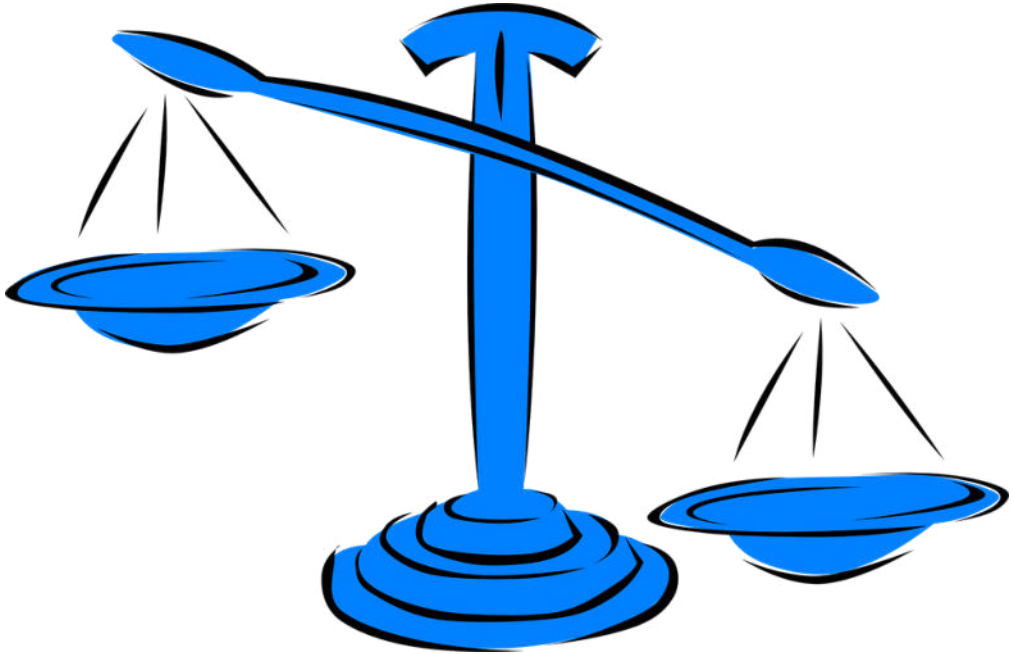
Pass out paper clips, cubes and clay.

- Hold 10 paper clips in your hand
- How could we find the weight of these?
- Pick up your partners clay.
- How can you find out if they are equal?

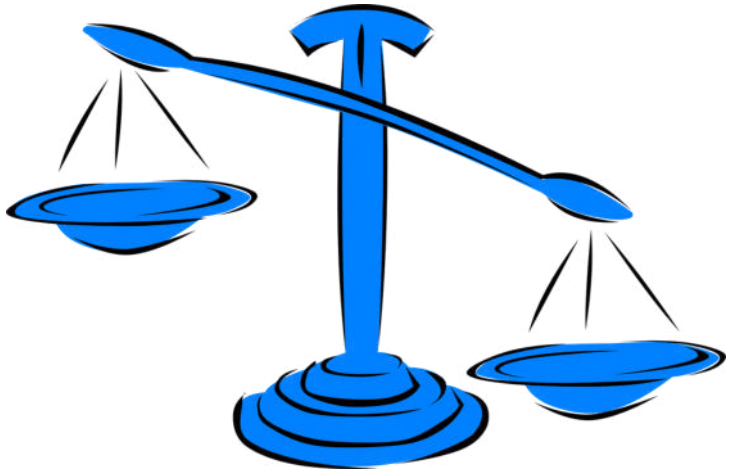
Mass is the measure of how much matter (fancy way of saying stuff) an object contains.

Weight is a measure of how heavy an object is.

To find the mass of an object, you use a balance scale.



- Pick up 10 gram cubes in one hand and 10 paper clips in the other and compare their mass.
- Place the cubes in one side and the paper clips in the other. What happened?
- So, if I added 25 paper clips how many cubes would I also have to add?



Now compare your clay to 10 cubes.

What is the mass of the cubes?

The paper clips have a mass of 100 grams. How many paper clips are there?

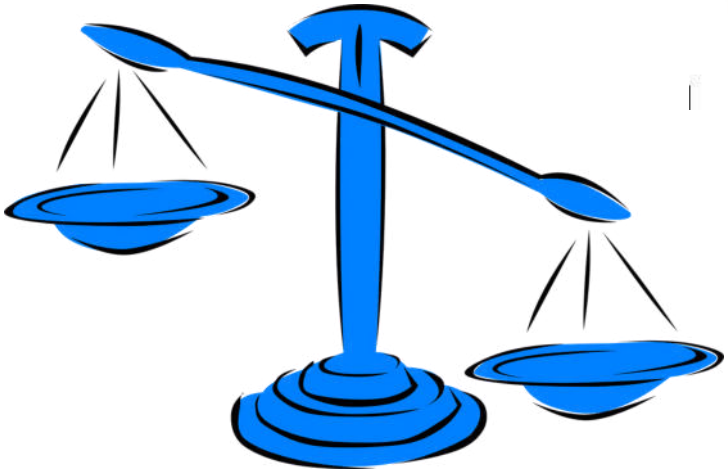
Is your clay more or less than the mass of the cubes?
How about the paper clips?

What is the mass of the cubes?

The paper clips have a mass of 100 grams. How many paper clips are there?

Groups can find the mass of their clay using the pan balance and adding either the paper clips or cubes.

How could we make each lump of clay in your group have the same mass? That is your mission….



- Which has more mass, a book or a feather?

- Which has more mass, a bag of cotton balls or a bag of rocks?

- Which has more mass, whipped cream or ice cream?

Work Places

2D Doubles Help

3A Round Ball Tens

3B Add & Round Tens

3C Round Ball Hundreds

3D Round & Add Hundreds

4A Tic-Tac-Tock

Daily Practice

SB 111 Mass of Clay