

# MEASUREMENT(MASS)

10.8.2018

## Subject

Basic Science

## Prepared By

[Instructor Name]

## Grade Level

2

## Overview

This lesson plan covers teaching content for;

- 1.Measuring Mass

## Objectives

Students will be able to:

- 1.Name instruments for measuring mass.
- 2.Compare masses using the balance provided.
- 3.State the metric units of mass.
4. Measure masses of objects using standard units.

## Information/Instruction

- 1.Pose the following questions to the class and discuss: **Why do we measure things? Why do we need standardized units of measurement?**
- 2.Tell students that metric unit for weight measurement is called mass.

## Teacher Guide

### Day 1/Lesson 1- 25 mins

1. Place the gram weight or paper clip onto one of the pans.
2. Ask a student to locate a classroom item that she believes weighs more than one gram. Have her place the item onto the other pan.
3. Explain that the heavier item will make its pan drop lower.
4. Record how heavy the student's item is relative to one gram (less than, equal to, or more than) on the board. (This will be the first entry in a list of records, so make sure to leave plenty of space below it.)
5. Replace the student's item with a kobo and record the results.
6. Pause for a few minutes to have a class discussion about the results thus far.
7. Replace the gram weight with the kilogram weight.
8. Ask a different student to locate an item that seems heavier than one kilogram.
9. Have her replace the kobo with it, then record the results.

## Guided Practice

### Day 2/Lesson 2- 15 Mins

1. Collect various objects that are familiar to the students - toys, fruit etc.
2. Draw and cut out cardboard pictures of the objects.
3. Place the objects on a table along with a set of simple balances.
4. Have your students come out in groups of four.
5. Have each student select two objects and weigh them on the balance.
6. Ask each student to move to the board and create a sentence, e.g. "the apple - is heavier than - the car".
7. The students then copy down the sentence.
8. At the end of the activity, they will have four statements which they can decorate and are great as a display.

## Materials Required

- Objects like marbles, bottle tops, shells Etc.
- Toys
- Simple balances
- Pan scale
- Pencil
- Lined paper

## Additional Resources

- <https://www.learningltoff.com/2nd-gr>
- <https://www.pinterest.com/pin/577024>
- <https://study.com/academy/lesson/me>
- <https://www.teacherspayteachers.com>
- [https://learnzillion.com/lesson\\_plans/7measured/](https://learnzillion.com/lesson_plans/7measured/)

## Additional Notes

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3. Have them know that measuring devices may include bathroom scales, kitchen scales and balance scales.

## Teacher Guide

### Day 3 / Lesson 3- 25 mins

1. Divide students into small groups of 4-5.
2. Have each group experiment with a pan balance (equal arm balance/balance scales) and a variety of materials, such as, beads, marbles, paddle pop sticks.
3. If materials are limited have the students rotate around the materials.
4. Students work with a minimum of direction and record their findings.
5. Have a sharing time to discuss the results and note any findings about balance – A pan balance is balanced when the pans are exactly equal.
6. Have each group estimate how many pencils are needed to balance
  - 5 marbles
  - 10 bottle tops
  - 3 shells
7. Ask them to check their estimates using a pan scale and record their results. e.g. 'I think 5 pencils will balance 5 marbles, but really I needed 8 pencils.'

## Guided Practice

### Day 4/ Lesson 4- 20 mins

1. Organize students into groups of three or four.
2. Have each group decide on roles for its members:
3. 1-2 students will locate 4 items that they believe weigh about one gram;
4. one student will use a scale to compare the items to a gram weight;
5. One student will record the results of each comparison.
6. Before starting the exercise, distribute a scale, gram weight, pencil, and piece of lined paper to each group.
7. Have each record-keeper make a three-columned chart labeled "Less Than," "Equal To," and "More Than" on the sheet of paper.
8. Each item the group examines will be placed into one of the columns based on its weight. For example, a marker would go into the "more than" column because it weighs more than one gram.
9. Give students 10 minutes to find, weigh, and record the comparison results for each item.

### Day 5 Lesson 5 - 15 mins

1. On the board, make three columns labeled Less Than 1 Kilogram, About 1 Kilogram, and More than 1 Kilogram.
  2. Ask students to name objects in the classroom that correspond to each category.
  3. Write the name of the object in the appropriate column.
  4. If you have a pan balance, have students check that the objects are classified correctly by comparing the object to a 1-kilogram mass. `
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## Teacher Guide

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## Guided Practice

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### Assessment Activity

1. Monitor students over the course of the exercise.

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### Assessment Activity

1. Write three examples of common liquid or mass amounts such as: a glass of water, a boot, a backpack or a picture of lemonade.
  2. Have students write on a  $\frac{1}{2}$  sheet of paper two things: 1) **what unit they would use to measure it, and 2) make an educated guess as to the volume or weight.**
  3. Turn the sheets in or review the guesses for reasonableness as a class and discuss.
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	Teacher Guide	Guided Practice
Summary		