

INTRODUCTION OF GRAM AND KILOGRAM AS UNIT OF MEASUREMENT

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Subject

Mathematics

Prepared By

[Instructor Name]

Grade Level

2

Overview

This lesson plan covers teaching content for;

1. Measurement of objects weights in grams and kilograms

Objectives

Students should be able to;

1. Measure weights of objects in grams and kilograms.
2. Make comparison of weight of different objects.

Activity Starter/Instruction

1. Describe to the students, imagine being at the beach and running your fingers through the sand. Have you ever tried to pick up a grain or even a handful of sand? It's pretty light!
2. Now, think about a large rock sitting on the beach. Would you be able to lift this on your own? Probably not.
3. Wait for answers like: It's much heavier than sand.

Teacher Practice

Lesson 1-20 Mins

1. Tell the students that we could measure that heavy rock in kilograms and that much lighter handful of sand in grams.
2. Explain that grams is a unit of measurement used to measure very light objects. For example, the lighter handful of sand or a small metal paperclip which has a mass of

Guided Practice

Lesson 1-15 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. 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

Materials Required

- Balance scales
- Gram weights or large paper clips
- Tins of milk and different type of stones
- Kilogram weight or a box of 1,000 large paper
- Small paperback book
- Pencils
- Lined paper

Additional Resources

- <https://study.com/academy/lesson/grams-kilogram-for-kids.html#/partialRegFormModal>
- <https://educators.brainpop.com/lesson-plan/grams-and-kilograms-activities-for-kids/?bp-jr-topic=grams-and-kilograms>
- <https://www.teacherspayteachers.com/Product/Math-Lesson-Plan-Year-Long-3rd-Grade-Free-S-3469062>
- <https://educators.brainpop.com/lesson-plan/grams-and-kilograms-background-information-for-teachers-and-parents/?bp-jr-topic=grams-and-kilograms>

Additional Notes

Assessment Activity

1. Organize students into groups of three or four.
 2. Have each group decide on roles for its members: 1-2 students will locate 4 items that they believe weigh about one gram; one student will use a scale to compare the items to a gram weight; one student will record the results of each comparison.
 3. Before starting the exercise, distribute a scale, gram weight, pencil, and piece of lined paper to each group.
 4. Have each record-keeper make a three-columned chart labeled "Less Than," "Equal To," and "More Than" on the sheet of paper.
 5. 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.
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- around 1 gram.
 3. Give examples of other objects with a mass of about 1 gram i.e. a stick of gum and a N20 note.
 4. Tell the students we can abbreviate the unit gram with the letter "g".
 5. Measure and compare different masses of objects and use key terms such as "greater than" or "less than" as you compare.
 6. Explain to students that a balance scale has a tilting beam with a container or pan on each end and can be used to compare the weights or masses of objects.
 7. Together with students, use a balance to compare masses. Which has a greater mass, an apple or an orange? A pencil or a pen? A marble or an eraser? A tin of milk or block of stones.
 8. Have children make predictions and use the scale to test their predictions.
 9. Explain that a kilogram is equal to 1,000 grams. A baseball bat, a dictionary, a pineapple, and a bag of flour are each about one kilogram.
 10. Tell them that the abbreviation for kilograms is "kg."
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- records, so make sure to leave plenty of space below it.)
 4. Replace the student's item with a penny and record the results.
 5. Pause for a few minutes to have a class discussion about the results thus far.
 6. Replace the gram weight with the kilogram weight.
 7. Now, calculate the masses of large objects in kilograms and use a scale to compare larger masses.
 8. Ask a different student to locate an item that seems heavier than one kilogram. Have her replace the penny with it, then record the results.
 9. Have students predict the masses of large objects such as a dictionary, sample of rocks, a watermelon, or a pair of boots.
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<p>Summary</p> <p>1. It is important for students to choose appropriate units when they measure mass.</p>	<p>2. Explain that grams are a good unit to use when they measure thing with smaller masses. For example, a carrot, a zucchini, and an onion are pretty lightweight and most likely have masses less than a kilogram. So, it makes more sense to measure in grams. In contrast, a pumpkin can be fairly heavy and have a mass greater than a kilogram. Thus, using kilograms is a better option.</p>	