

## **Investigations**

**Book:** Measurement Benchmarks

**Session:** 3

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### **1. Concept:**

- Developing a sense of the weight of 1 kilogram, 500 grams, 100 grams, 1 gram, 1 pound, and 1 ounce, and developing benchmarks for these measures
- Measuring weight with a balance scale and weights (both metric and US Standard)
- Comparing metric and US standard measures of weight by direct measurement

### **2. CSOs:**

**M.O.5.4.5**

**M.O.5.4.6**

### **3. Technique/Procedure/Introduction/Set:**

- In centers, allow students to work with materials such as foam bits, nails, and sand to make packages that equal exact weights.
- Make a two column chart headed Measures of Weight. Label accordingly.
- Ask the students what they already know about weight and how it is measured and record responses.
- Form groups and distribute Student Sheet 13 and balances and scales.
- Demonstrate the process of making bagged weights.
- Encourage students to try a variety of materials and discuss.
- Make labels for the six weights and post them on tables or windowsills where students can display their newly made weights.
- Students create weights and place them in the appropriate weight group.
- Students record a description of each weight their group makes on Student Sheet 13.

### **Closure:**

Look back and displays and discuss and compare the different bagged weights. Encourage sharing what the students have discovered. If any of the weights that students made seem like benchmarks, they can add them to the previous List of Benchmarks. Leave them on display for future session.

### **Homework:**

Send home Student Sheet 14, Things I Know About a Kilogram, on which students record at least 5 things they know about a kilogram.

#### **4. Today's Math/Assessment:**

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#### **5. Materials:**

- Chart paper
- Completed Student Sheet 1 (from Investigation 1)
- Balances or scales that measure up to 1.5 kilograms (3 or 4)
- Metric and standard weights: 1 kg, 500 g, 100 g, 1 g, 1 lb, 1 oz (2-4 of each per class)
- Student Sheet 13 (1 per student)
- Materials that vary in density
- Paper or plastic bags (16-18 large; 10-12 small per class)
- Stick-on notes or masking tape
- Student Sheet 14 (1 per student, Homework)

#### **6. Vocabulary:**

Benchmarks  
Gram  
Pound  
Ounce  
Kilogram