Grade 3	Lesson: 15-3 **Units of Mass**	Reference to English

Math Standard(s): 3.MD.2 **Domain: Measurement and Data**

Content objective(s):	Language Objective(s):
Students will choose an appropriate unit and tool, estimate, and measure in grams and kilograms. Students will identify objects with a mass of about one gram or one kilogram. 我会选择适合的单位和工具来估计和用克和千克来测量。 我会认出大概一克或一千的物体。	Students will say their estimations and comparisons to their partner. 我会说出测量的估计和给同学听并做比较。
Essential Understanding: Mass is a measure of the quantity of matter in an object. Weight and mass are different.	**Required Academic Vocabulary for Word Wall:** **Listen:** 大量，克，千克 **Read:** **Write:** **Speak:** **Sentence Frame:** • "____ 的量大于一千克。" • "____ 的量小于一千克。"
Materials: • Pan balance • Dollar bill • Stapler, and other objects to compare.	**Additional Lesson Vocabulary:**

Lesson:	**Instructional Time: 30-35 minutes**

Opening: (5 minutes)
• Review measuring the capacity of containers.
T: "今天你会学习怎么用米制单位来测量一样东西的大量。"
T: "大量是什么？大量是一样物体有多少物质。"
• Hold up objects of different masses. Compare them.
T: "哪些物体有类似的大量？"

Introduction to New Material (Direct Instruction): (8 minutes)
• Write the units of mass on the board – grams (g) and kilograms (kg)
T: "1 千克有 1,000 克。"
• Use page 378B of the Teachers' Manual.
• Compare mass of objects as great or less than the book.
T: "知道一本书的大量可以怎么帮你估计 _____的大量? 告诉你旁边的同学。"

Guided Practice: (10 minutes)
Use the modeling cycle:
Teacher Does:
• Done in Direct Instruction
1 Students Does with Teacher:
• Done in Direct Instruction
2 Students Do:
All Students Do:
• Have students work in pairs and estimate whether objects are more or less than a kilogram. Then have them record their findings.
• Have students share their findings with the class.
• "The ____ has a mass greater than one kilogram." Or "The ____ has a mass smaller than one kilogram."

Independent Practice: (7 minutes)
• Have students do problems 1,2,5-12 on page 378 independently.

Closing: (7 minutes)
• Do problems 13-21 as a class on page 379 to finish.

Assessment:
Guided and Independent Practice