

In an effort to keep parents and guardians informed of the expectations and content being covered in math class this year, this informational handout will be provided for each chapter. Its intent is to assist in guiding you in ways to support your child in deepening their mathematical understanding.



In each chapter we will spend time reviewing material taught in prior grades as it relates to the standards being taught in fourth grade. Our goal is to keep a balance of skill based learning along with enhancing our student's ability to problem solve and think conceptually.

Scan the QR code to check out teaching strategies for this chapter.

Review Material from Prior Grades
<ol style="list-style-type: none"> 1) Products and quotients within 100. (3.OA.7) 2) Measure/estimate liquid volume and masses using standard units of grams, kilograms, and liters. Add, subtract, multiply, and divide one-step word problems involving masses/volumes in the same unit. (3.MD.2)
New Material for 4th Grade
<ol style="list-style-type: none"> 1) I know relative sizes of measurement units within one system of units including km, m, cm, mm, kg, g, lb., oz., L, mL; hr., min, sec. I can within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. I can record measurement equivalents in a two-column table. (4.MD.1) 2) I can use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, in problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. (4.MD.2-1) 3) I can use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, in problems involving simple fractions or decimals. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. (4.MD.2-2)
End of Chapter Expectations
<ol style="list-style-type: none"> 1) Chapter Assessment

*Please note the list above highlights the main skills to be assessed. Teachers may include additional content to meet the needs of their students.

Metric System of Measurement**☺ Family Practice ☺**

Check out some of these free, math websites to practice metric measurement.

- 1) Add and Subtract Metric Units

<https://www.mathgames.com/skill/4.128-add-and-subtract-metric-units>

- 2) Horrendous Soup- A Metric System Game

<http://mrnussbaum.com/soup/>

- 3) Metric Matching

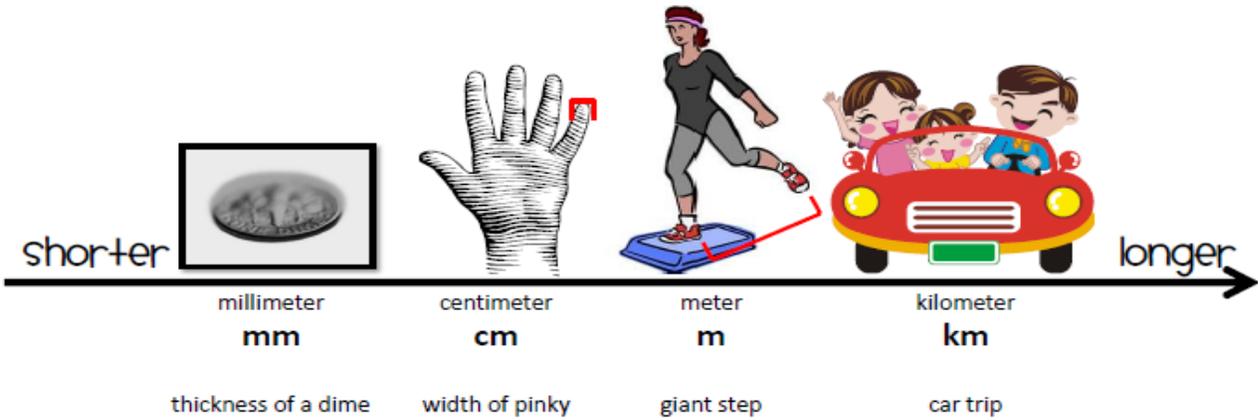
<http://www.sheppardsoftware.com/mathgames/measurement/MeasurementMeters.htm>

In February, students will begin to take a weekly measurement quiz. These will include conversions in both the customary and metric systems, that 4th graders are required to know for the Mississippi Achievement Assessment Program (MAAP), which is our end of the year assessment. At the end of the 9 weeks, each quiz will be averaged together to make one grade for the classwork component of the students' overall math average.

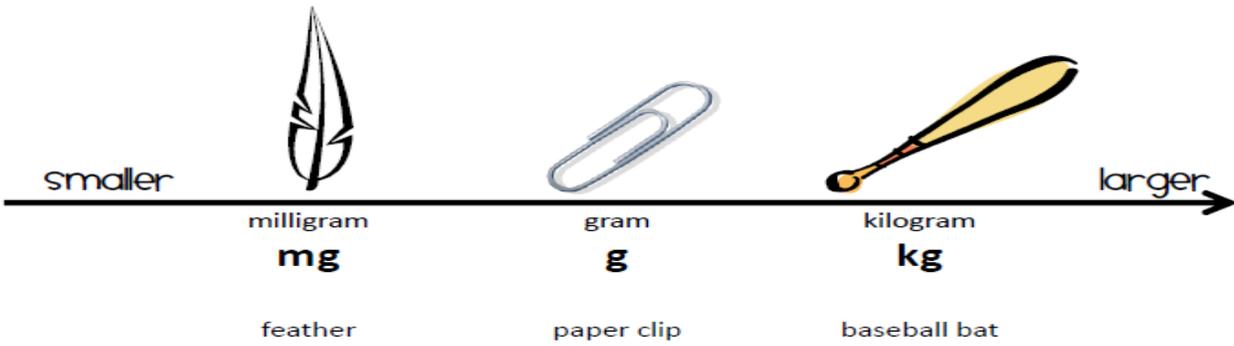
Metric Conversions
Length
1 km = 1,000 m
1 m = 100 cm
1 dm = 10 cm
1 cm = 10 mm
Weight
1 kg = 1,000 g
Volume
1 L = 1,000 mL

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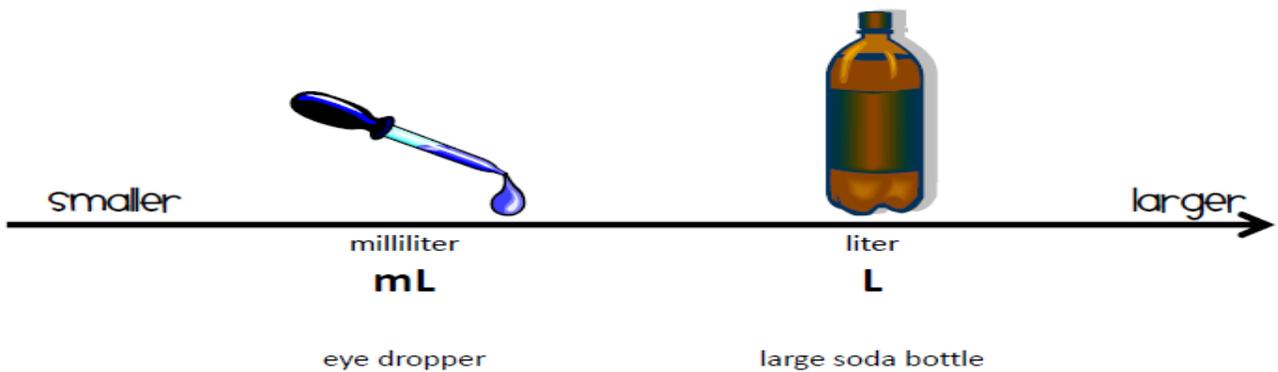
Metric Length



Metric Mass



Metric Capacity



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Metric System of Measurement

Conversion Tables

Create a conversion table to show the relationship between two units. In the above example, the conversion table shows kilometers and meters. This will help you solve conversion problems and word problems.

Kilometers (km)	Meters (m)	(km, m)
1	1,000	(1, 1,000)
2	2,000	(2, 2,000)
3	3,000	(3, 3,000)
4	4,000	(4, 4,000)

Example:

4 km = _____ m

By creating the table, you can write the amount for one and continue until you know the amount you are looking for.

Creating a Two-Column Table for Metric Units

Create a conversion table to show the relationship between two units. In the above example, the conversion table shows kilometers and meters. This will help you solve conversion problems and word problems.

4 km = 4,000 m

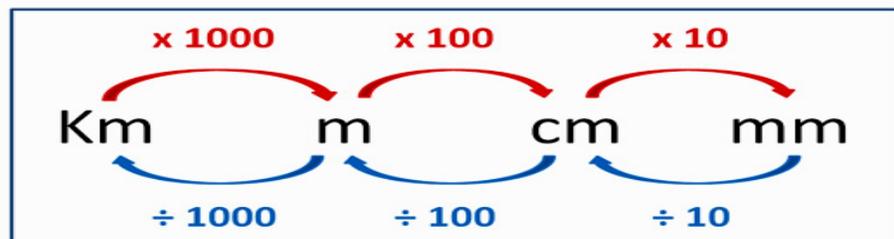
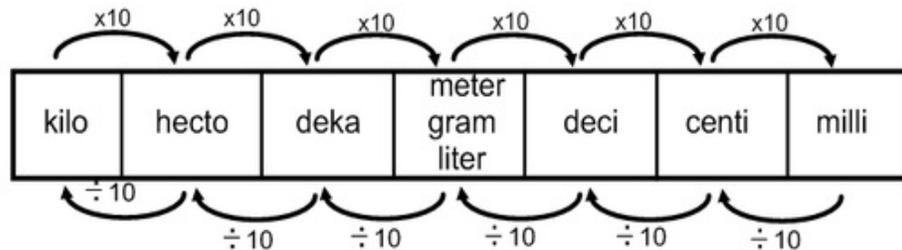
Kilometers (km)	Meters (m)	(km, m)
1	1,000	(1, 1,000)
2	2,000	(2, 2,000)
3	3,000	(3, 3,000)
4	4,000	(4, 4,000)

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Metric System of Measurement

Metric Conversions

Multiplying and Dividing by Powers of 10



5km = ? m **Need to x 1000** 5 x 1000 = 5000m ✓
 120cm = ? m **Need to ÷ 100** 120 ÷ 100 = 1.2m ✓

Multiplying and Dividing by Powers of 10: Ladder Method

Ladder Method

To convert to a larger unit, move decimal point to the left or divide. ←

To convert to a smaller unit, move decimal point to the right or multiply. →

How do you use the “ladder” method?

- 1st – Determine your starting point.
- 2nd – Count the “jumps” to your ending point.
- 3rd – Move the decimal the same number of jumps in the same direction.

4 km = _____ m

Starting Point Ending Point

How many jumps does it take?

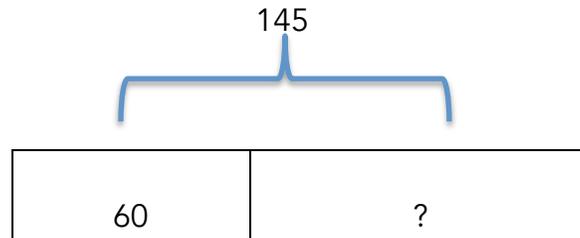
4. = 4000 m

1 2 3

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Metric System of Measurement**Model Drawing with Metric Measurements**

Carmen has a bottle that contains 145 milliliters of Gatorade. She drinks 60 milliliters after her softball game. How much Gatorade is left in her bottle?



$$145 - 60 = 85$$

Carmen has 85 milliliters of Gatorade left in her bottle.

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