

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.

<b>Review Material from Prior Grades</b>
<ol style="list-style-type: none"> <li>1) Products and quotients within 100. (3.OA.7)</li> <li>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)</li> </ol>
<b>New Material for 4<sup>th</sup> Grade</b>
<ol style="list-style-type: none"> <li>1) I know relative sizes of measurement units within one system of units including km, m, cm, 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)</li> <li>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)</li> <li>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)</li> </ol>
<b>End of Chapter Expectations</b>
<ol style="list-style-type: none"> <li>1) Chapter Assessment</li> </ol>

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

**Strategies for Metric Measurement**☺ **Family Practice** ☺

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

- 1) Funny Numbers- Greg Tang

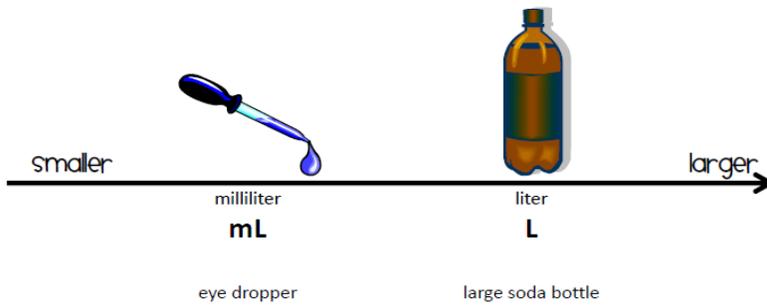
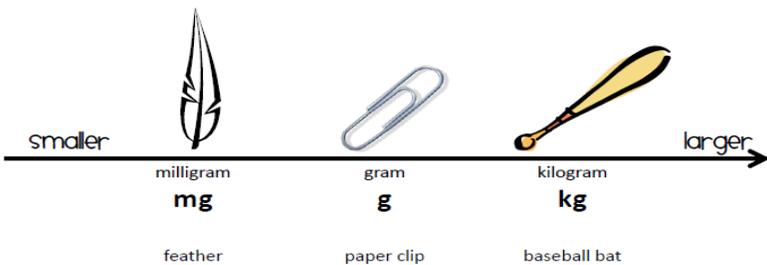
<http://gregtangmath.com/play?game=funnynumbers>

- 2) Conversion Soup

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

- 3) Metric Matching

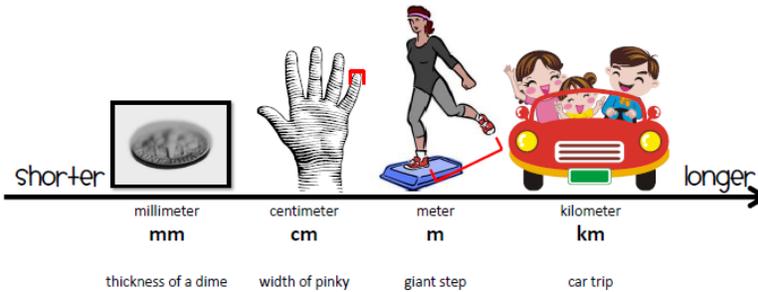
<http://www.sheppardsoftware.com/mathgames/measurement/MeasurementMeters.htm>

**Metric Capacity****Metric Mass**

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Strategies for Metric Measurement, Continued

# Metric Length



## Metric Conversion Chart

<i>Length</i>	<i>Weight</i>	<i>Volume</i>
1 km = 1,000 m	1 kg = 1,000 g	1 kL = 1,000 L
1 m = .001 km	1 g = .001 kg	1 L = .001 kL
1 m = 100 cm	1 g = 100 cg	1 L = 100 cL
1 cm = .01 m	1 cg = .01 g	1 cL = .01 L
1 m = 1,000 mm	1 g = 1,000 mg	1 L = 1,000 mL
1 mm = .001 m	1 mg = .001 g	1 mL = .001 L

## 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.

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**Strategies for Metric Measurement, Continued**

**Creating a Two-Column Table for Metric Units**

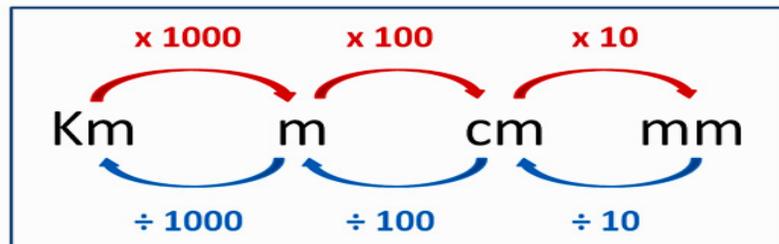
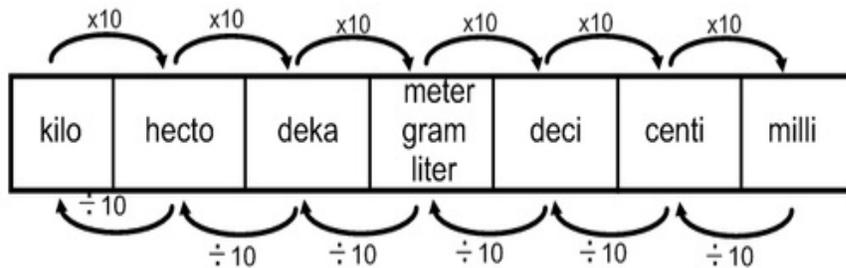
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**Metric Conversions**

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 ✓

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Strategies for Metric Measurement, Continued

**Metric Conversions**

Multiplying and Dividing by Powers of 10

### Ladder Method

**How do you use the “ladder” method?**

1<sup>st</sup> – Determine your starting point.

2<sup>nd</sup> – Count the “jumps” to your ending point.

3<sup>rd</sup> – Move the decimal the same number of jumps in the same direction.

$4 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

↑
↑  
 Starting Point      Ending Point

How many jumps does it take?

$4.\underbrace{\quad\quad\quad}_1.\underbrace{\quad\quad}_2.\underbrace{\quad\quad}_3 = 4000 \text{ m}$

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