

Name _____ Date _____ Hour _____

Chemistry: Guided Reading Chapter 2-1

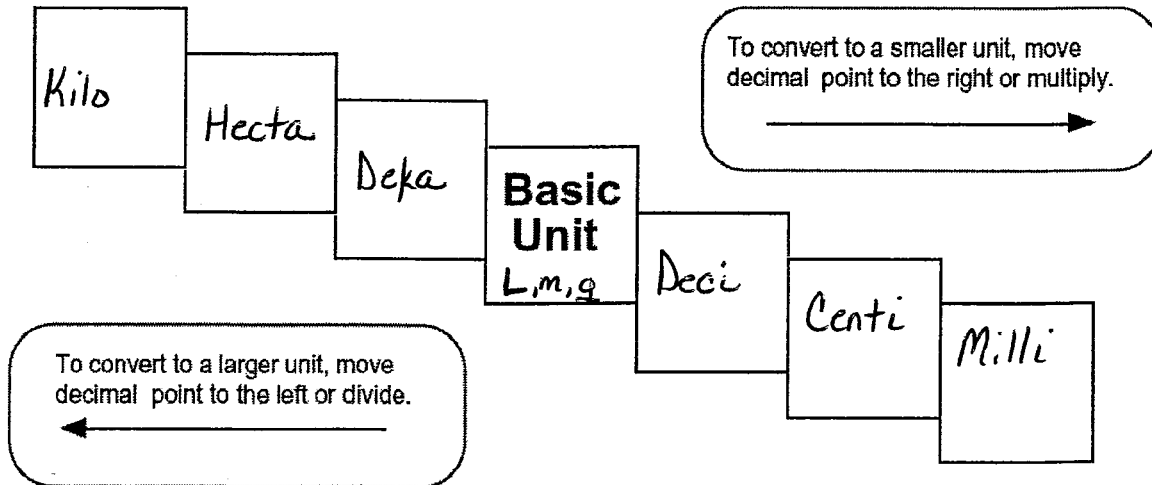
1. Why do scientists need standard units of measurement?
2. What are the standard base units for mass, length, time, and temperature?
3. How many pounds are in a kilogram? How many kilos would a person weigh if they weighed 154 pounds?
4. Which units will we most often use chemistry?
5. How is temperature usually defined? What are the 3 temperature scales?
6. A friend calls you from Canada, they are on spring break and report that it is 30°C outside, what is this temperature in $^{\circ}\text{F}$?
7. Between which two temperature scales can we easily convert from one temperature to another?
8. What's a derived unit? Give one example of a derived unit.
9. What is density? What quantities do we need to know in order to calculate density?
10. Review: What is the purpose of using standard units? How does this connect back to creating a valid scientific experiment?

Metric Mania

Metric Conversions

Name _____

Fill in the boxes in the stair step diagram.



Write the correct abbreviation for each metric unit.

- | | | |
|-------------------|---------------------|---------------------|
| 1) Kilogram _____ | 4) Milliliter _____ | 7) Kilometer _____ |
| 2) Meter _____ | 5) Millimeter _____ | 8) Centimeter _____ |
| 3) Gram _____ | 6) Liter _____ | 9) Milligram _____ |

Try these conversions, using the ladder method.

- | | | |
|-----------------------|----------------------|-----------------------|
| 10) 2000 mg = _____ g | 15) 5 L = _____ mL | 20) 16 cm = _____ mm |
| 11) 104 km = _____ m | 16) 198 g = _____ kg | 21) 2500 m = _____ km |
| 12) 480 cm = _____ m | 17) 75 mL = _____ L | 22) 65 g = _____ mg |
| 13) 5.6 kg = _____ g | 18) 50 cm = _____ m | 23) 6.3 cm = _____ mm |
| 14) 8 mm = _____ cm | 19) 5.6 m = _____ cm | 24) 120 mg = _____ g |

Compare using <, >, or =.

- | | | |
|----------------------|------------------|----------------------|
| 25) 63 cm ○ 6 m | 27) 5 g ○ 508 mg | 29) 1,500 mL ○ 1.5 L |
| 26) 536 cm ○ 53.6 dm | 28) 43 mg ○ 5 g | 30) 3.6 m ○ 36 cm |