

METRIC CONVERSION SCAVENGER HUNT

Honors Chemistry

Find as many of the following items as possible in the units given. Each item is worth 0.25 point for a possible 5 points. For each item, **show your work** and include the source of the answer. **DO NOT** get help from anyone else! This is not a group or partner project, it is **individual**. If you need to use measuring equipment, you should bring the object to class to measure.

Example:

Find the volume of a baseball in cm^3 .

Diameter of baseball = 6 cm, Radius = 3 cm

Volume of a sphere = $\frac{4}{3}\pi r^3 = \frac{4}{3}\pi (3)^3 = 113 \text{ cm}^3$

1. The *volume* of twenty-five nickels in cm^3 (and how you found it)
2. The *length* of the longest part of your hand in millimeters.
3. The *length* of a teacher's pointer finger in meters (not mine). Give the name of the teacher.
4. Something besides a meter stick that measures between 970 and 1030 mm.
5. The *height* of the ceiling in this room in cm and how you figured it out.
6. The *distance* from Mars to the sun in kilometers and where you found the information.
7. The *mass* of a brand new yellow #2 wooden pencil in micrograms.
8. The *volume* of a pack of 3" x 5" cards in cubic millimeters.
9. The *mass* of a dollar in change in nanograms and the coins that you used.
10. The diameter of a compact disc in picometers.
11. The maximum volume of water that you can hold in your mouth in liters. (Explain your procedure and how you figured this out)
12. The number of milliliters of Sprite in a 2-Liter Coke bottle.
13. The *mass* of the earth in kilograms and where you found the information.
14. The *mass* of meat (before cooking) in a McDonald's "Quarter Pounder" in milligrams (no, you don't have to buy one).
15. The number of cubic millimeters in one cubic meter.
16. The *mass* in grams of 100.0 mL of water
17. The *height* of a counselor in meters and the name of the counselor.
18. The deepest depth of the ocean in kilometers (tell where you found it and the name of the ocean area).
19. The number of femtoseconds in a second.
20. The *length* of an assistant principal's shoe in cm and the name of the assistant principal.
21. The freezing point of water in Kelvin.
22. The distance between George Washington's eyes on the one-dollar bill in millimeters.
23. The *thickness* of 500 chemistry books in millimeters and how you figured it out
24. The *length* of your car in centimeters and what kind of car you have.
25. The number of songs a 60 Gigabyte MP3 player can hold if each song is 3,500 kilobytes.