Skill Badge Requirements Sheet

I "heart" METRIC



Developed as a universal system of measure, the adoption and understanding of the metric system just makes sense. Whether you are designing your next robot or measuring distance to the nearest star, the use of the metric system to describe your measurement is universally understood. Isn't base 10 nice?

Requirements (Check when complete):

This section focuses on the investigation of key terms that define the metric system

Do EACH of the following and submit to your instructor:

- Identify and describe base units of
 - Length Mass
 - Volume

 - Temperature
 - Temperature
- Spend at least one week using only the metric system rather than the Imperial and detail your findings
 - Read only the km/h speed on your speedometer
 - Reconfigure your GPS to display metric units
 - Hide all of your imperial rulers
 - Reconfigure your Weather Bug to display degrees C
 - You get the idea!

This section focuses on explaining the origin and definition of the aforementioned terms

Do EACH of the following and submit to your instructor:

- Describe how 1 meter is determined using scientific measurement
- Describe the method for converting 1in to cm
- Describe the method for converting 1cm to in

Do EACH of the following and submit to your instructor:

- Describe how one metric ton is determined using scientific measurement
- Describe a method for producing 1g of mass without a scale
- Uverify the accuracy using a scale

Do EACH of the following and submit to your instructor:

Describe the dimensions of a 1L cube

- Describe a method for producing a 1L of water with a scale
- Verify the accuracy using a graduated cylinder

Do EACH of the following and submit to your instructor:

- Describe how metric time is determined using scientific measurement
- Describe how metric time is used to describe angle

Do EACH of the following and submit to your instructor:

- Describe how temperature in Celsius is determined using scientific measurement
- Measure the temperature of boiling water and record the results
 - lacksquare Only complete this task with your instructors supervision
- Measure the temperature of a cup of ice and record the results
- Describe the conditions at which water reaches its triple point and its relation to "absolute zero"

Do ONE of the following and submit to your instructor:

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Produce a dialog describing the differences between the imperial system, metric and the International System of Units (SI)

Describe instances where measurement systems are confused. (i.e. NASA's Mars Orbiter)

Describe why you think that the metric system is superior/inferior to the Imperial system

_____ has successfully completed the above requirements and demonstrated proficiency in a satisfactory manner as set by their instructor.

Student

Date

Instructor

Date