

Do Now

Monday, August 22, 2016

How do we convert between SI units?

Write your answer using complete sentences.

3.5 minutes

Do Now Check

By the end of the day today, IWBAT...

- Differentiate between Pure & Applied Science; Constant variable and Control Variables.

Why it matters in LIFE:

Learning the SI units are crucial to communicating with scientists in other countries!

Why it matters in THIS CLASS: You will conduct labs all year long that will require mastery of these concepts! Tested material.

Monday, 08/22/16

P.S.1; P.S. 2-11:

Distinguish between scientific hypotheses and scientific theories.

By the end of today,
IWBAT...

Explain the Difference between constant and control

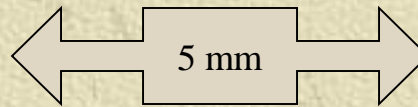
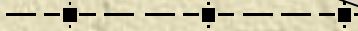
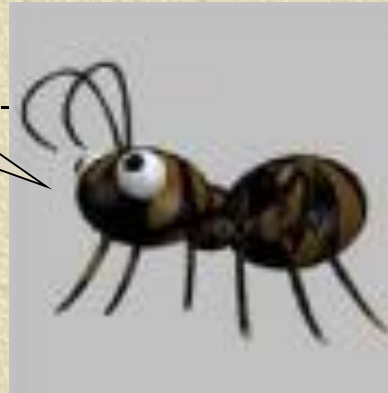
Essential Questions:

How do we convert between SI units?

Topic:

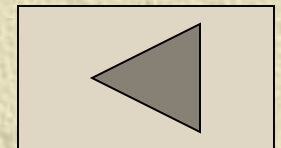
Metric Conversion

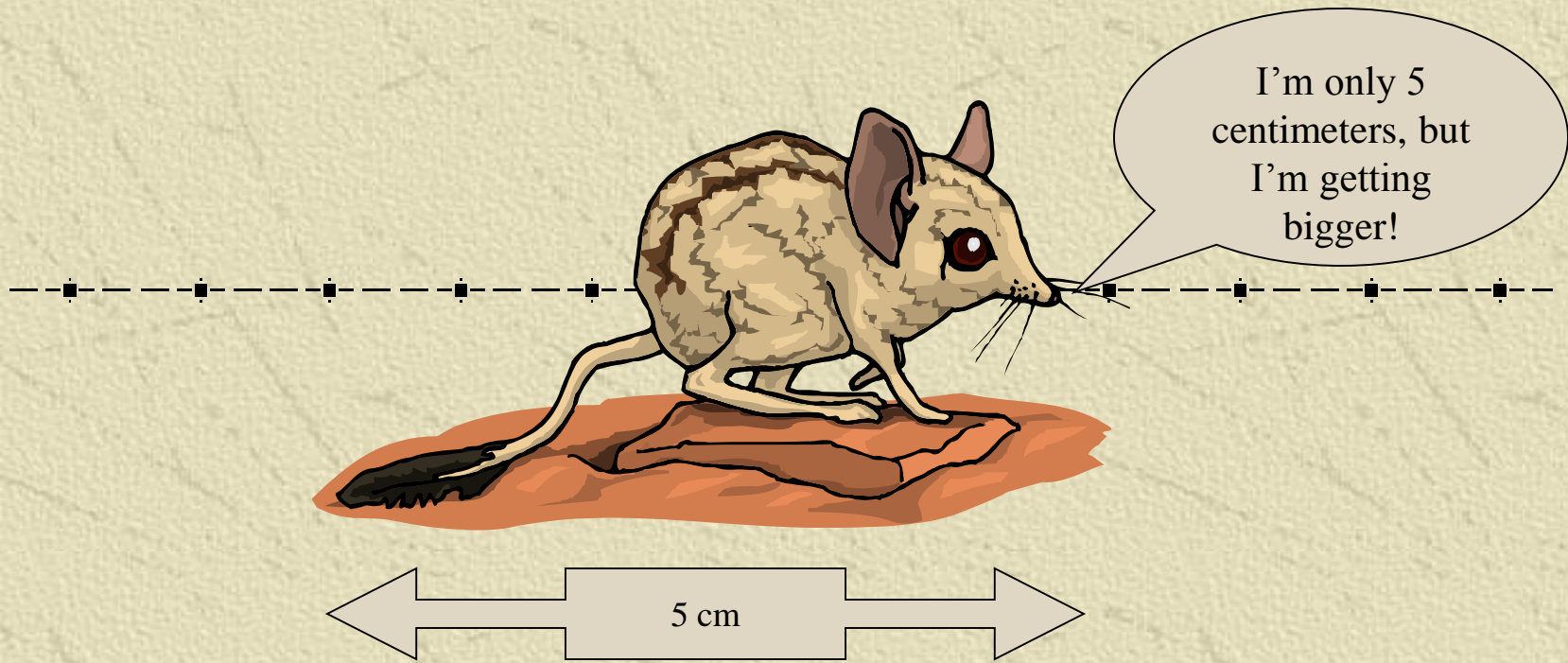
I'm only 5 millimeters long!



Remember:

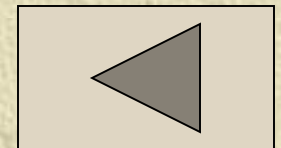
Millimeters are tiny, and you measure small things with them.





Remember:

Centimeters are small, and you measure small things with them.

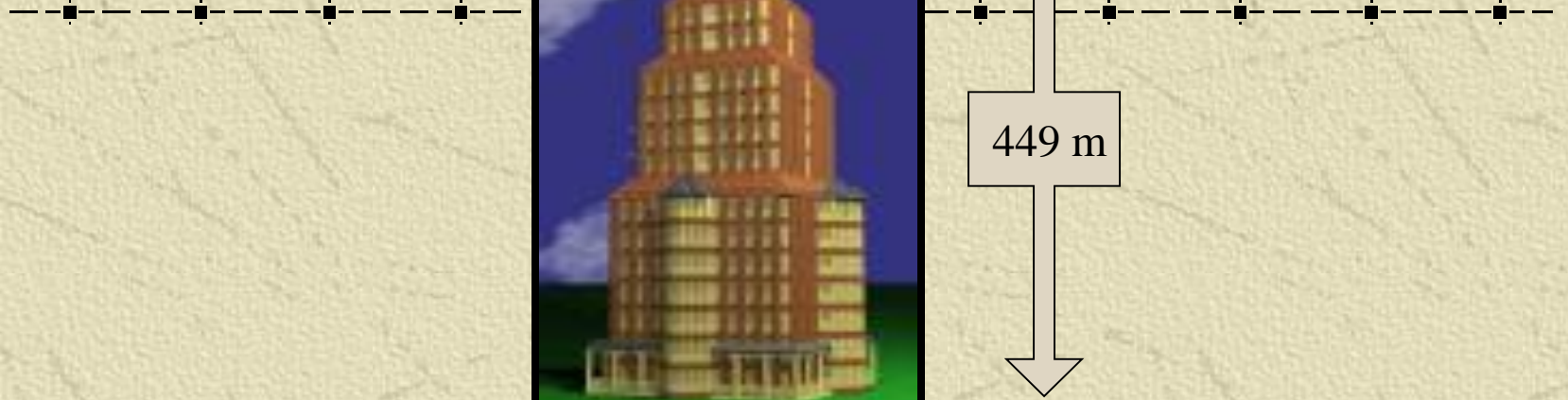




What **unit** would you use to measure the **height** of this **skyscraper**?

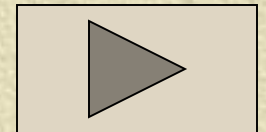
Choose one:

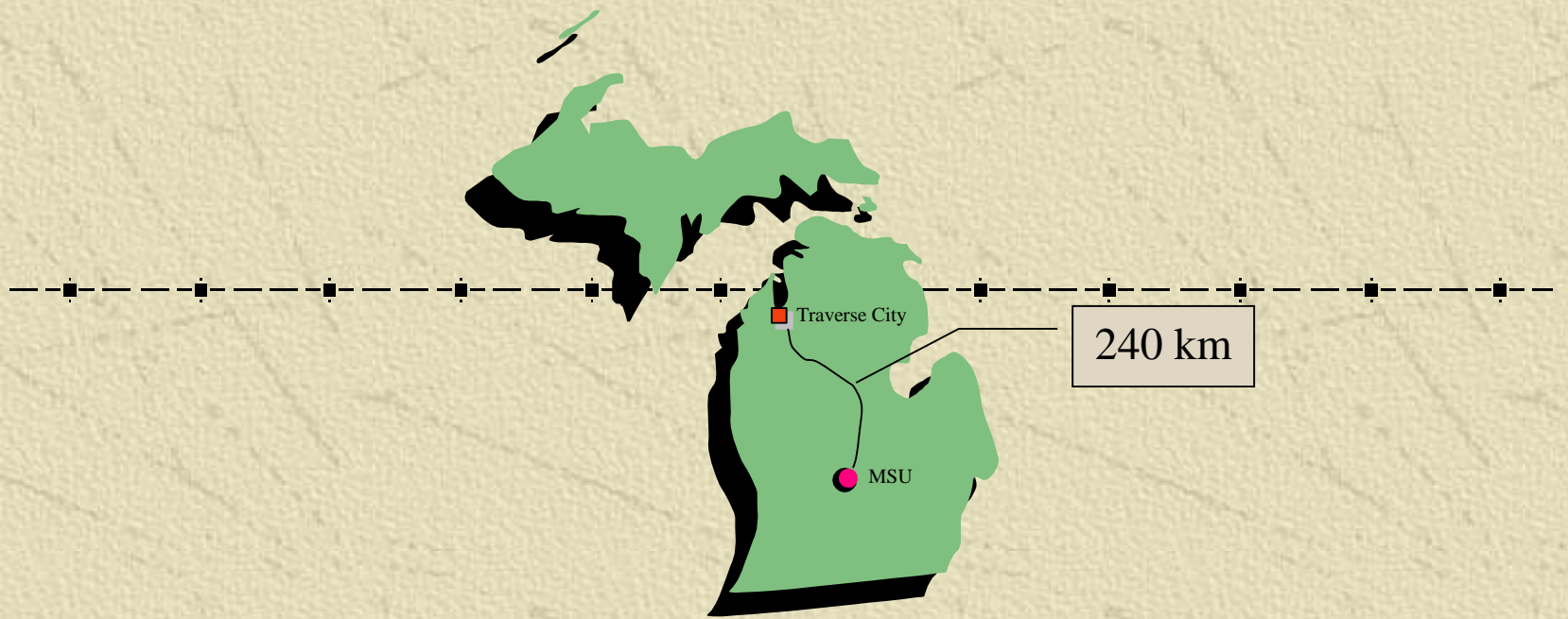
Millimeter (mm) Centimeter (cm) Meter (m) Kilometer (km)



Excellent!

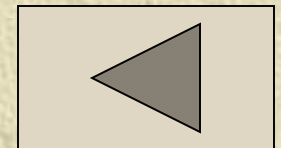
The height of most structures are measured in **meters**!

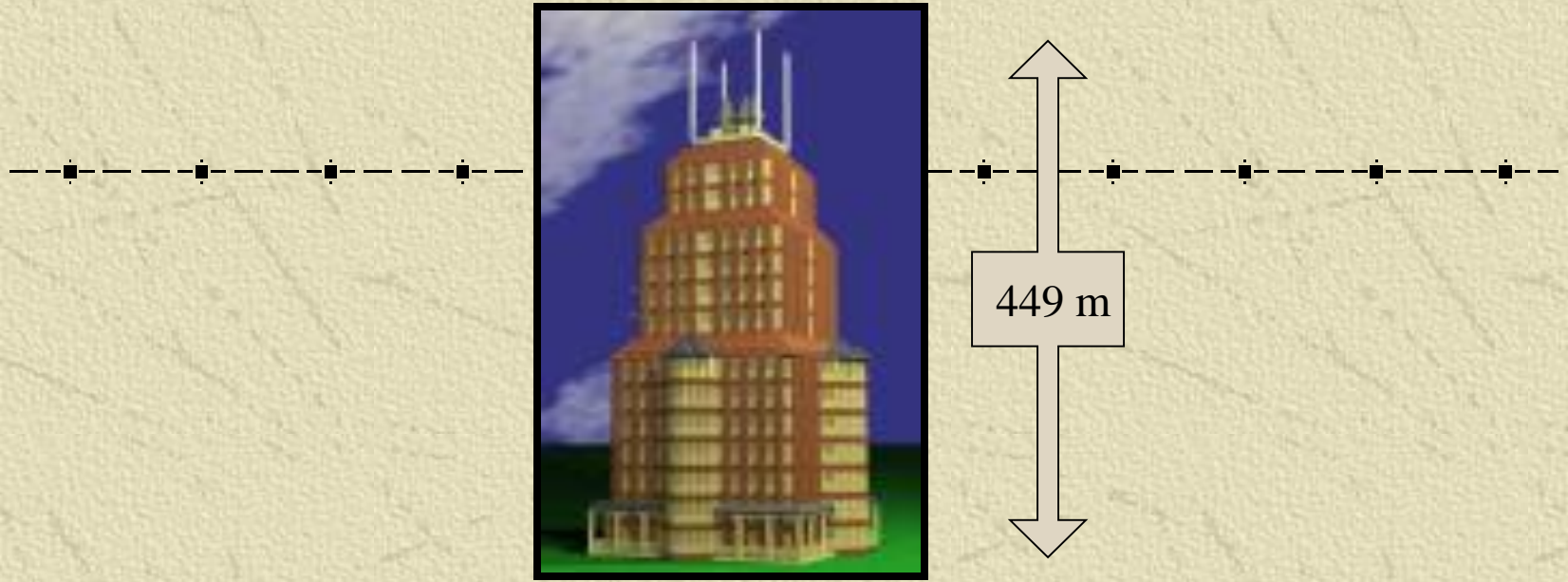




Getting close!

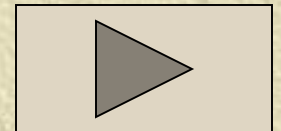
But most structures are measured with units that are smaller than a kilometer.





BUT WAIT!!!

What if you wanted to know how many centimeters tall a skyscraper was... How would you convert from km to cm???

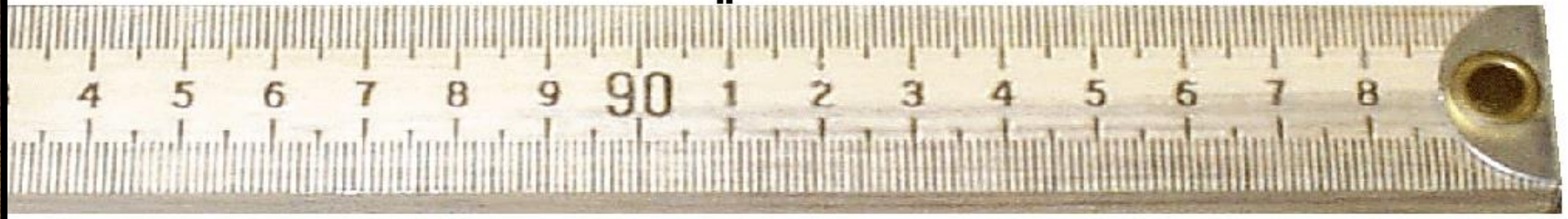


First, let me ask you a question...

1 cm



1 mm



Look at the end of this meter stick.

How many millimeters are in a centimeter?

Choose one...

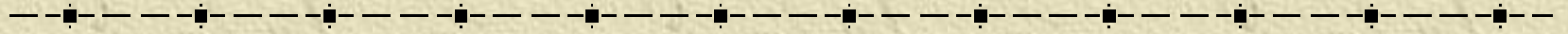
1mm = 1cm

5 mm = 1cm

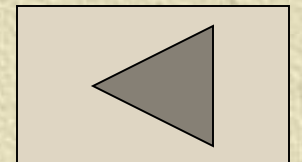
10 mm = 1cm

100 mm = 1cm

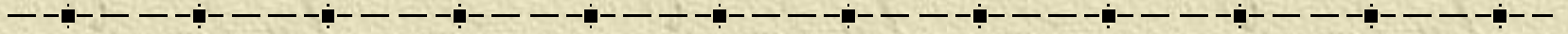
A millimeter is **not** equal to a centimeter.



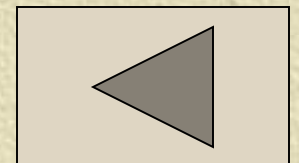
Try looking at the meter stick again and see if you can **count** how many millimeter hash-marks there are in a centimeter



Keep counting... 😊



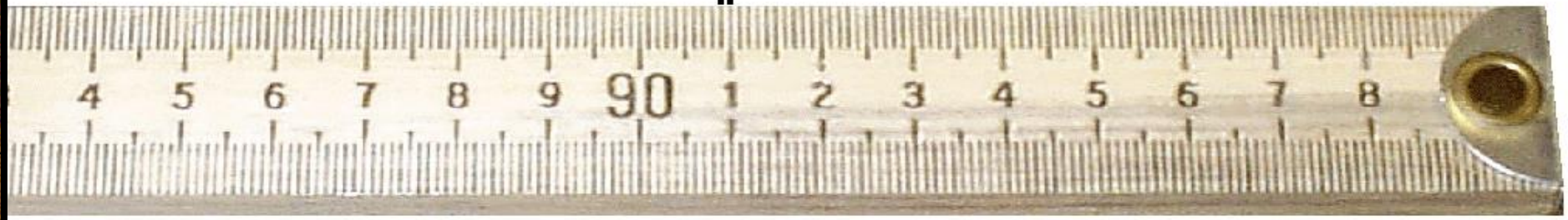
There are more than 5 millimeter hash-marks in 1 centimeter.



1 cm



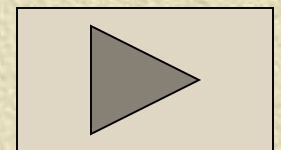
1 mm



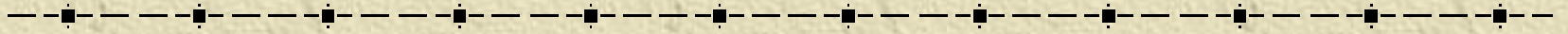
CORRECT!!!

As you can see, there are 10 little millimeter hash-marks within one centimeter.

So $10 \text{ mm} = 1 \text{ cm}$!

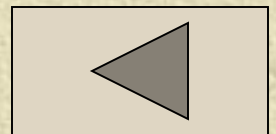
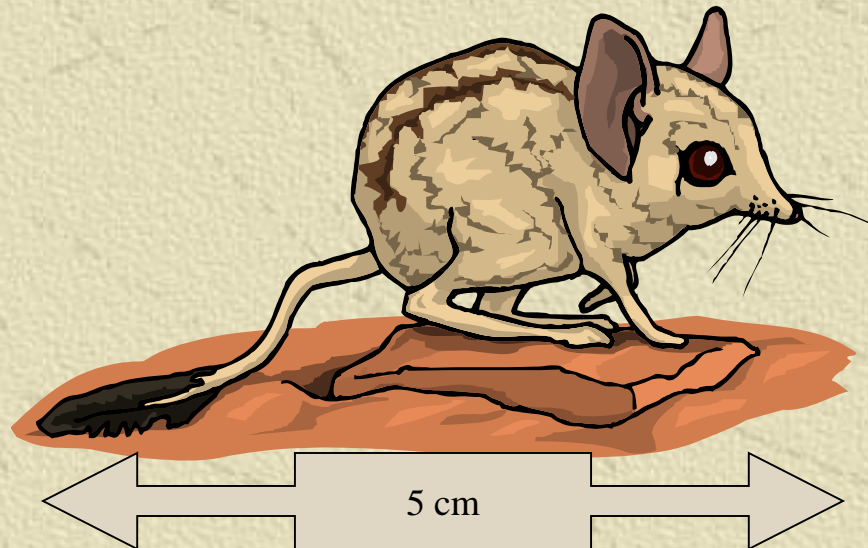


10 cm = 1m is incorrect.



Remember that you learned a meter is about three feet in length.

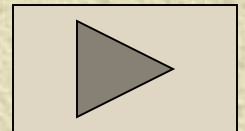
If 10 cm = 1m then a meter would only be about 2 mice long!



Correct!

There are 100 centimeters in 1 meter.

Just like there are 100 cents in 1 dollar.



Tell me...

If all the prefixes in the metric system were arranged on a staircase, would it help you solve this dilemma?

