Wednesday, September 5, 2018

Your Learning Goal:

After students learn how to accurately read a ruler, they will use a ruler to correctly measure and build a Metricopter.

Table of Contents: Rules of the Ruler – 3R

Catalyst: (3L)

- Use your own unit of measurement to determine the width of our classroom

⚠ Homework:

Marshmallow LEAF and Syllabus DUE TODAY

Agenda:

1. Catalyst
2. Notes: How to Read a Ruler
3. Reflection
4. Metricopter!!!!

Table of Contents

9/5/18

Catalyst:
Use your own unit of measurement to determine the width of our classroom
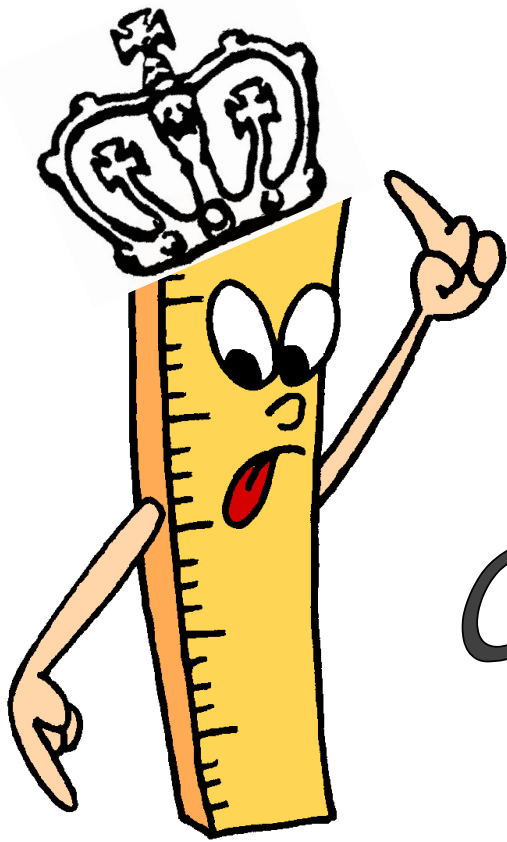
9/5/18

Rules of the Ruler

3L

3R

Big Question:

How do all scientists communicate with each other?

How to be...

A RULER OF THE RULER!

So what happens when we don't make accurate observations or communicate clearly?

Why are measurements important?

*<u>Measurements</u> <u>are important because...</u>

1) They give us a way to *communicate* clearly using a <u>common</u> system.

Why use a ruler?

2) A <u>ruler</u> is used to *measure* <u>length</u> or <u>distance</u>.

How long is this fish?

Using a **Ruler**
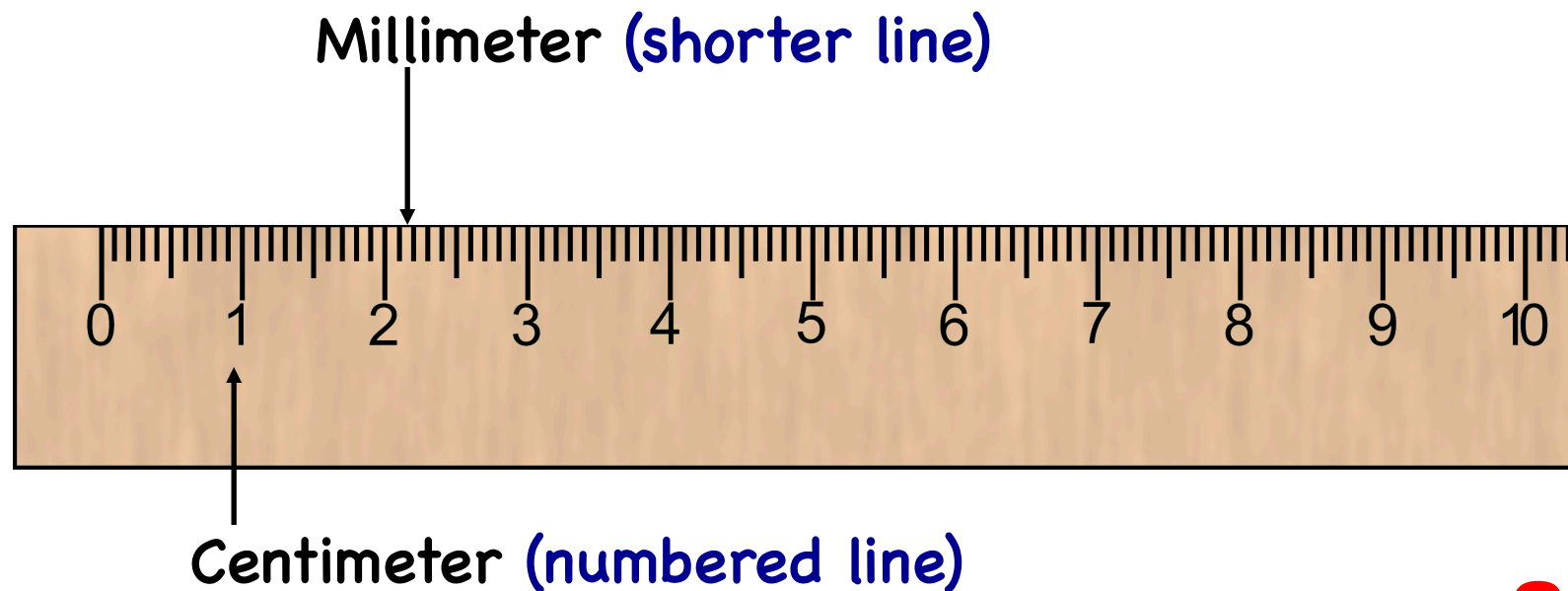
A **ruler** has two sets of marks...

CENTIMETERS

INCHES

* Using a **Ruler**

- The <u>long</u> lines with <u>numbers</u> are **centimeters** (cm).
- The <u>shorter</u> lines are **millimeters** (mm).
- <u>10 mm</u> = <u>1 cm</u>
- The "<u>half-way</u>" lines are a little <u>longer</u> (every <u>0.5 cm</u> or <u>5 mm</u>).

Millimeter (shorter line)

Centimeter (numbered line)

3R

Catalyst:

Use your own unit of measurement to determine the width of our classroom
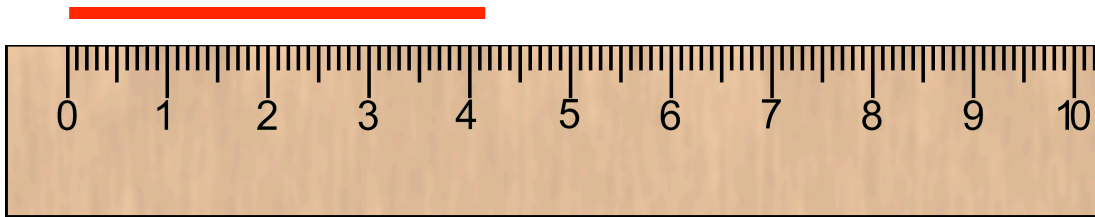
3L

<u>Rules of the Ruler</u>

- Numbered Lines are centimeters.
- Smaller lines are millimeters.
- 10 mm add up to 1 cm.

3R

*Steps for Measuring in cm:

#1: Line up the <u>zero</u> mark on the ruler with the edge of the object you are <u>measuring</u>.

#2: Record the whole centimeter, followed by a <u>decimal</u> point. → 4.

#3: Record the number of <u>millimeters</u>. → 4.2

#4: Write down the <u>units</u>. → 4.2 cm

3R

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3L

Rules of the Ruler

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3R

The Great Metricopter

Ms. Tao
Science

Team #
Period #

Hold here for dropping
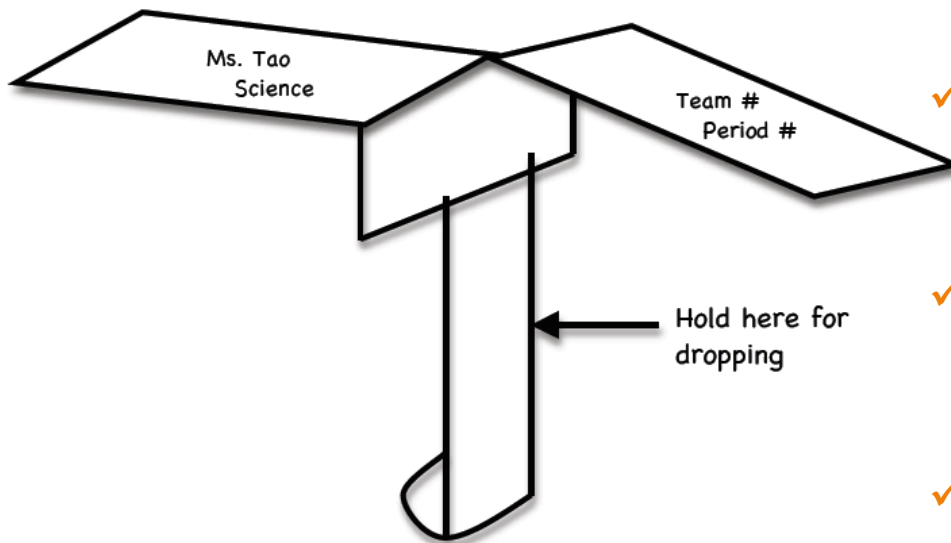
- ✓ Each person is going to make their own paper "Metricopter" on lined paper.
- ✓ Your challenge is to make sure you're using the ruler correctly.
- ✓ When each member of your team is done, you can race your "Metricopter".
- ✓ The person with the slowest "Metricopter" is the winner.

We are going outside!

Choose one someone from your table who will:

1 to be you long jumper,

1 person to be your scribe

2 to measure the distance in cm.

What will you need?

1. Pen/pencil
2. Data table handout
3. Notebook or clipboard
4. Patience and focus

Group #	Trial 1 length (cm)	Trial 2 length (cm)
1		
2		
3		
4		
5		
6		
7		

3L

Catalyst:

Use your own unit of measurement to determine the width of our classroom

LEAF:

A standard unit of measurement was essential in the long jump activity because…

3L

<u>Rules of the Ruler</u>

- Numbered Lines are centimeters.
- Smaller lines are millimeters.
- 10 mm add up to 1 cm.

<u>*Steps for measuring in centimeters:</u>

#1: Line up the zero mark on the ruler with the edge of the object you are measuring.

#2: Record the whole centimeter, followed by a decimal point

#3: Record the number of millimeters

#4: Write down your units

3R

LEAF 3L

Lead: Where you state the topic of your paragraph.
A standard unit of measurement was essential in the long jump activity because…

Evidence: Observable and quantifiable data that a writer uses to support a claim. Compare your data measuring the width of the classroom to using the ruler in the long jump activity.

Analysis/Warrant: Certain rules that connect evidence back to claims—how the evidence supports the claim.
Compare your experience in the two activities, which is more accurate, why?

Finisher: Restating your claim in a new way to provide closure for your argument. What is the major take-away or theme here?)