Do Nows Metric PBL

## Do Now 1/30/20

## What do you notice and think about this map?

What do you wonder?



#### Roles

- 1. Leader
- 2. Supply Manager
- 3. Reporter

## Day 1 Team Measuring Challenge

Pour 40 ml of water into the cylinder

Cut a 25cm length of string

Build a tower 45cm high

Find an object you think is 100g

Describe on the paper provided how you would dress for 20 degrees Celsius

## DEBRIEF

- 1. Which measurements were you closest on?
- 2. How comfortable are each of you with the metric system?
- 3. Which unit is the most challenging to picture?
- 4. What did your team do well for collaboration?
- 5. What could you improve.
- 6. Self-assess

## Do Now 1/31/20

What are some expectations you have of your teammates when you are in a group?

#### Do Now 1/14

## What are some **units** we use to measure length? Speed? Volume? Time? Temperature?

## Do Now 1/15

Your drive to school is 3.5 miles. What is that distance in feet? Use dimensional analysis and conversion factors.

## Team Time-10 minutes

- What are all of the ways you are exposed to numbers throughout your day?
- How are those things measured?
- Brainstorm interview questions to ask one adult and one peer about the numbers they see.

#### Do Now 2-10

## Sit with your original group

A recipe calls for 7.5 teaspoons of canola oil but your bottle is ounces. How many ounces of canola oil do you need?

## Team Time-10 minutes

 Create 3 interview questions to ask one adult and 3 interview questions to ask one peer about the numbers they see. Interview those people today and bring your answers tomorrow.

## Organize Binder

- 1. Calendar
- 2. Content Notes
- 3. Common Conversion Sheet
- 4. Conversion Tutorial
- 5. Conversion Stations (You will get this today)

## **Dimensional Analysis Stations**

- Random Partners
- Move at the timed pace
- Use a pencil and calculator
- Show work!

### Do Now 1/17

# You are in school for 7.5 hours. How many seconds are you in school?

## Team Time (10 minutes)

- Review answers from interview questions
- Begin to make list as a group about what would change/stay the same for units in the US if we switched to metric.

### Whole Class Time

- Conversion List- What would change?
- Need to Knows- Revisit

#### Practice Time!!!

## Do Now 1/22

## A car is 6.4 feet long. How many meters is the car?

## TURN IN DO NOW STAMP SHEET :)

## Agenda- 1/18

- Unit Conversion Quiz
- Need to Know Revisit- What to add?
- Team Time- Metric vs. Standard
  - What would change?
  - Class Brainstorm
- Claim- Should we change to the metric system?
- Organize Binder

## Do Now 2/19

Sort the following units into metric and American (some are both):

meters, feet, liters, pounds, quarts, kilograms, seconds, hours, mi/h, km/h

 Metric Quiz- if you missed it's in your AC Turn in Do Nows from last week (if you haven't) • Organize Binder

## Do Now 2/20

#### Convert:

1. 14 meters = \_\_\_\_\_ inches

2. 150 pounds = \_\_\_\_\_ kg

## Do Now 2/24

#### Convert:

1. 6.5 days = \_\_\_\_\_ seconds

2. 7542 mL = \_\_\_\_\_ cups

## Update Need To Knows

## Sources for Individual Letter

Do you think America should switch to the metric system? Why or why not? Write a letter to a congressperson or senator.

## Individual Work Time

- Complete Annotation Sheet
- Show your teacher
- Look up the congressperson you want to send your letter to (you may need to put in your address after your zip code)
- Read the article on how to write a letter to a member of congress
- Begin to draft your letter

## Do Now 1/25

Update your claim: Do you think the US should switch to the metric system? Why or why not?

## Team Time

- Think of **daily examples** of how the measurements would change (think about food, Google maps, etc.)
- Begin to create your script for your group component

#### You will have a teacher meeting MONDAY!

## Individual Work Time

- Complete Annotation Sheet
- Show your teacher
- Look up the congressperson or senator you want to send your letter to (you may need to put in your address after your zip code)
- Read the article on how to write a letter to a member of congress
- Begin to draft your letter

#### Letter to Congressperson

Dear \_\_\_\_\_,

Paragraph 1: Introduce yourself, state your claim

Paragraph 2 & 3: Reasoning of claim using your sources

Paragraph 4: Restate your claim and thank them for reading.

## Do Now 2/28

How much and what do you need to finish your letter to your congressperson?

## New Due Dates!

- Complete your letter to your Congressperson by the end of class today Due Monday 3/2
  - Check for grammar and spelling! Please break it up into paragraphs :)
- If most of your group finishes, work on your outline or script for your final product
- Team Time next week to complete group project

## Agenda Today

- Organize Binder
- Get a laptop and finish your letter to your congressperson.
  - Check for grammar and spelling! Please break it up into paragraphs :)
- If most of your group finishes, work on your outline or script for your final product

#### Turn In Do Now Stamp Sheet

## Reminders

- Letter to Congressperson is due today on Google Classroom
- Binder Check is Today in Class
  - You can redo binder checks at any time :)
- Presentation for Group Portion is Thursday or Friday
  - I will also meet with each group today during binder checks :)
# Team Time (I will call up for Binder Checks)

- Determine the 8+ measurements that would change and 2+ that would not change
- Complete the dimensional analysis/unit conversion for the measurements that would change
- Create the script for your group product
- \* Presentations Thursday or Friday in class

As we finish up the group portion of the PBL, what qualities do you plan to bring to your group to finish by Thursday/Friday?

## Reminders

# If you missed Friday...

- Letter to Congressperson is due on GC
- Binder Check (I will check today)
- Do Now Stamp Sheet (from Friday)

ANY ASSIGNMENT CAN BE TURNED IN AGAIN

## Team Time

- Determine the 8+ measurements that would change and 2+ that would not change
- Complete the dimensional analysis/unit conversion for the measurements that would change
- Create the script for your group product
- \* Presentations Thursday or Friday in class

Out of this list what does your group need to do?

- 1. Identify measurements changes/no change
- 2. Unit conversions (standard to metric)
- 3. Write script
- 4. Practice/Record

# What does your group need to finish for your group portion of the PBL?

It is now due Monday!

Rate yourself 1 (rarely) to 4 (always) for group work:

- I attend class and am on time every day.
- I communicate with my group.
- I am a team player and tried to help my group always.

# Today's Agenda

- Your group will meet with me to turn in your group portion
- You will complete a self and group evaluation
- I will give a sticky note of anything you need to work on for this class

What do you notice about these graphs?

What does it tell you?

# Workers in science and engineering occupations

In 2015, women and some minority groups were represented less in science and engineering (S&E) occupations than they were in the U.S. general population.



Source: National Center for Science and Engineering Statistics, National Science Foundation Women, Minorities, and Persons with Disabilities in Science and Engineering: 2017 https://nsf.gov/statistics/wmpd/

#### Do Now 3/2

# Take out your annotation sheet.

What did one of your sources tell your about the metric system?

## Group Portion Question/Goal

How would daily life change if America switched to the metric system? What would change and not change?

Create a skit, video, story, story book, etc. to tell your class. (3-5 minutes long due **Wednesday**)

#### Do Now

# What type of group product will your group complete?

What are some examples of measurements that would change? That would not change?

### Team Time

- Work on your group project Video, skit, music video, etc.
- Brainstorm a list of 8+ measurements that would change and 2+ measurements that would not change