

What you need out for class

today?



New Remind for periods 2

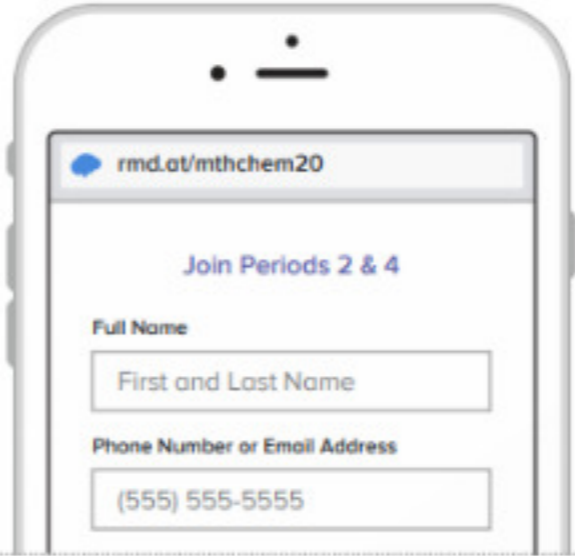
Pick a way to receive messages for Periods 2 & 4:

A If you have a smartphone, get push notifications.

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/mthchem20

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.




B If you don't have a smartphone, get text notifications.

Text the message @mthchem20 to the number 81010.

If you're having trouble with 81010, try texting @mthchem20 to (832) 924-0474.

* Standard text message rates apply.



Don't have a mobile phone? Go to rmd.at/mthchem20 on a desktop computer to sign up for email notifications.

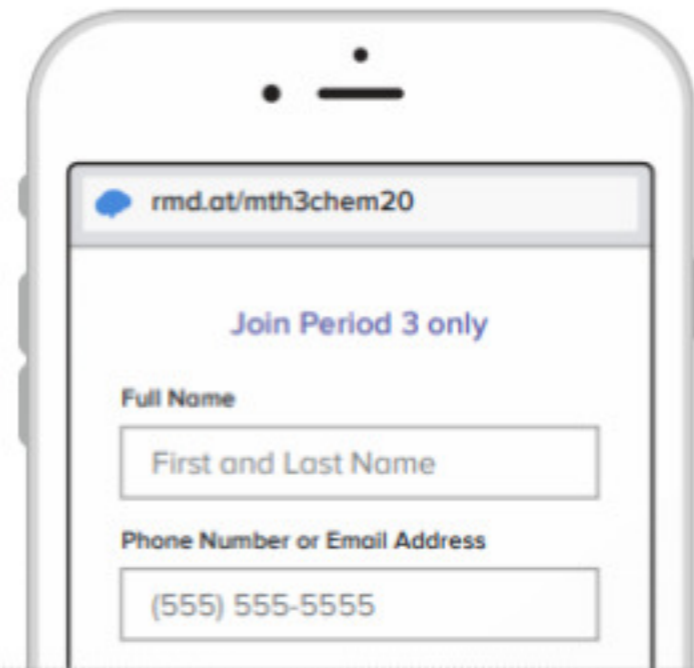
New Remind

A If you have a smartphone, get push notifications.

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/mth3chem20

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.



B If you don't have a smartphone, get text notifications.

Text the message @mth3chem20 to the number 81010.

If you're having trouble with 81010, try texting @mth3chem20 to (832) 924-0474.

* Standard text message rates apply.



New Remind periods 5

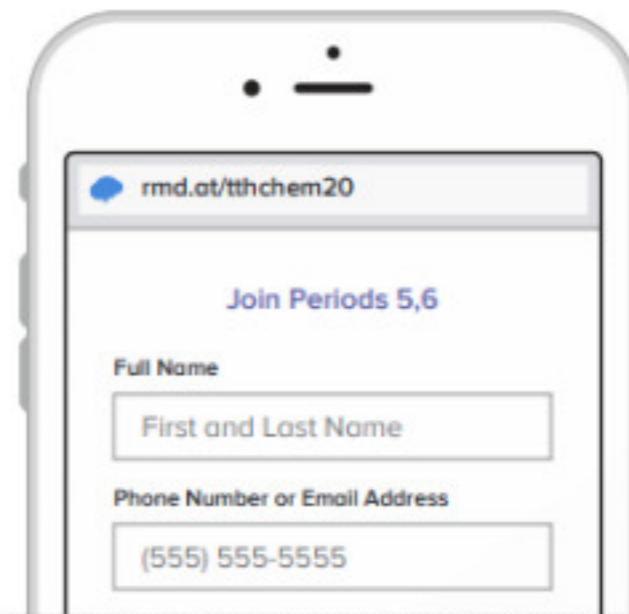
Pick a way to receive messages for Periods 5,6:

- A** If you have a smartphone, get push notifications.

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/tthchem20

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.



- B** If you don't have a smartphone, get text notifications.

Text the message @tthchem20 to the number 81010.

If you're having trouble with 81010, try texting @tthchem20 to (832) 924-0474.

* Standard text message rates apply.



Virtual Meeting Expectations

BE ON TIME



**ON
TIME**

Wake up early enough to get ready
Eat breakfast
Log on a few minutes early
Use your real name on the screen.

BE PREPARED

**BE
PREPARED**



Be in a QUIET location
Technology should be charged
No distractions including phones
(unless you are using your phone to meet)

MUTE YOURSELF

Keep your mic on MUTE unless you have been called on

MUTE



Use headphones if you have them

BE PRESENTABLE

Wear appropriate clothing

Be sure your camera is on

Sit up straight and be in camera view for attendance



CHAT RESPONSIBLY



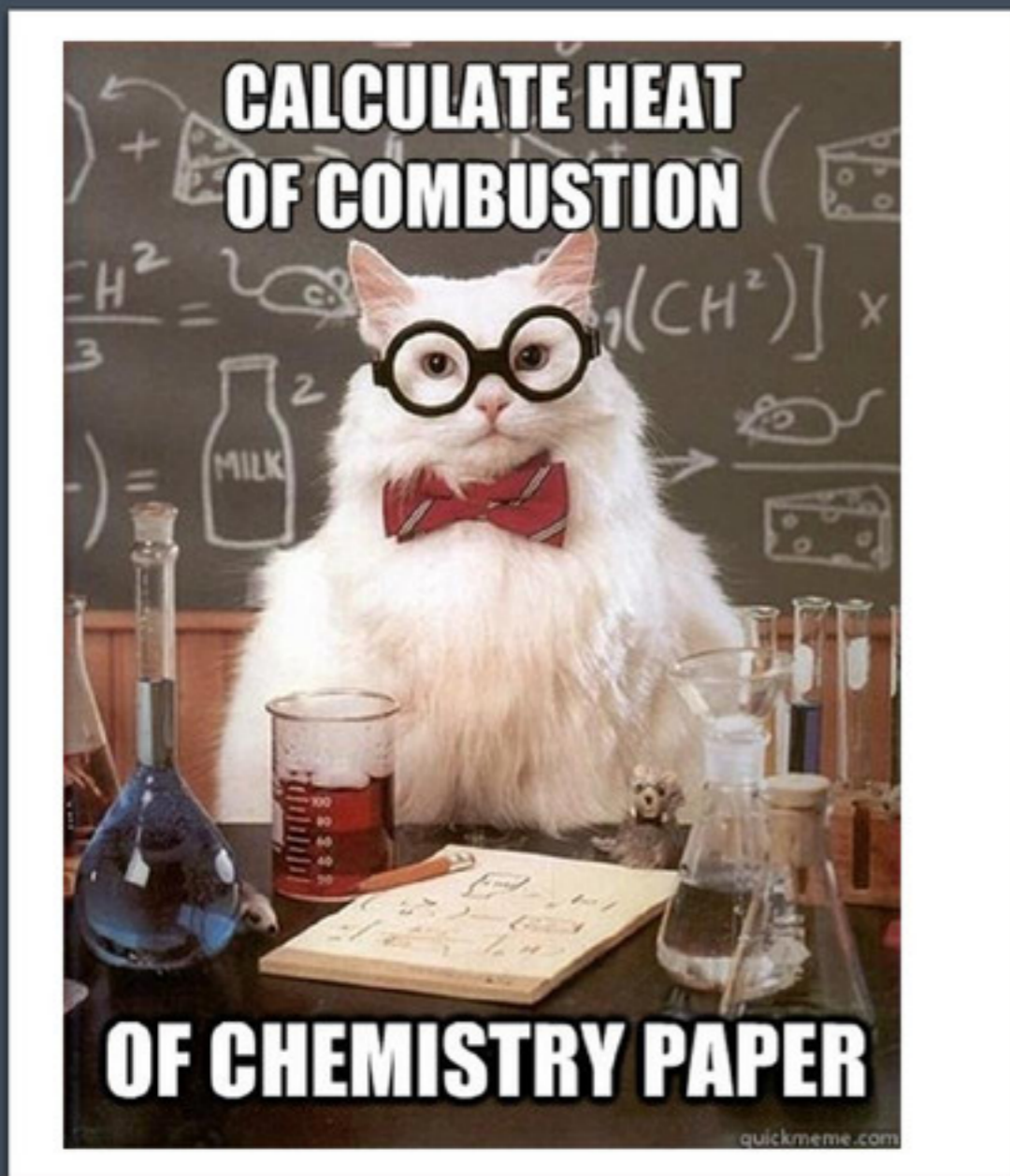
Raise your hand to speak
Type your question in the chat box
Stay on topic (no side conversation)

PARTICIPATE

**LET'S
PARTICIPATE**



Stay focused
Ask and answer questions
Listen and show respect to peers



IS1T1 Combustion - part 1

Observations

1.

2.

3.

Questions

1.

2.

Get Fired Up! – part 1

- Part 1. Watch the videos [Whoosh Bottle](#) & [Whoosh bottle 2](#) and make at least 3 observations and 2 questions about the videos below. These videos can be found on the class website under IS videos then IS1T1.
- <https://www.youtube.com/watch?v=98Vkl1YnNFs>



<https://www.youtube.com/embed/98Vkl1YnNFs>

MODEL 1. Labeled Picture- Draw what you saw and label anything you can. Under the picture explain what you think is happening.



Question	My response (circle)	Correct response (circle)
Did we make new energy?	Yes or No	Yes or No
Did we make new atoms?	Yes or No	Yes or No

MODEL 1. Labeled Picture- Draw what you saw and label anything you can. Under the picture explain what you think is happening.



fire coming out
Smoke

Question	My response (circle)	Correct response (circle)
Did we make new energy?	Yes or No	Yes or <input checked="" type="radio"/> No
Did we make new atoms?	Yes or No	Yes or <input checked="" type="radio"/> No

**Explain:
Reason/
Think It Out:**

1. Name all of the components of this “system?”

2. Circle the types of “particles” are present.
solid *liquid* *gas*

3. What is needed to burn the liquid- the reactants?

Explain: Reason/ Think It Out (Answers):

1. Name all of the components of this “system?”

Bottle, liquid, air, fire

2. Circle the types of “particles” are present.

solid

liquid

gas

3. What is needed to burn the liquid- the reactants?

fuel(liquid they put in) and oxygen

**Explain:
Reason/
Think It Out:**

4. What is produced by the burning of the liquid-
the products?

5. Overall, energy is going **(circle one)** into / out of
the system.

6. How do you know?

Explain: Reason/ Think It Out (Answers):

4. What is produced by the burning of the liquid- the products?

Heat, carbon dioxide, & water

5. Overall, energy is going (**circle one**) into / out of the system.

6. How do you know?

**You see a flame - which implies heat or energy was produced.
It is a product.**

Poll

In the Whoosh bottle experiment, was energy released or absorbed?

- released
- absorbed

Explain: Reason/ Think It Out: (All the answers):

1. Name all of the components of this "system?"

Bottle, liquid, air, fire

2. Circle the types of "particles" are present.

solid

liquid

gas

3. What is needed to burn the liquid- the reactants? **fuel(liquid they put in) & oxygen**

4. What is produced by the burning of the liquid- the products?

Heat, carbon dioxide, & water

5. Overall, energy is going (circle one) into / out of the system.

6. How do you know?

**You see a flame - which implies heat or energy was produced.
It is a product.**

States of Matter – Anticipation Guide

- Answer the 12 questions by yourself.
- In the first column, put a check mark in either the “A” or “D” column, indicating your agreement or disagreement with each statement.

STATES OF MATTER



	A	D	Why is my choice correct/incorrect?
1. There are three states of matter: solid, liquid and gas			
2. Matter is made up of atoms and the way these atoms interact determines an objects state			
3. Solids have a definite volume, but not a definite shape			
4. The atoms in a solid vibrate in place			
5. Liquids have a definite shape, but not a definite volume			
6. The atoms of a liquid move completely free of each other			
7. Gases do not have definite shapes or volumes			
8. The atoms of a gas are held close to each other, but can slide around each other			
9. A change of state is happens when a substance changes from one physical form to another			
10. Melting occurs when you change from a solid to a liquid			
11. The change of state from liquid to solid is called boiling			
12. Evaporation occurs when a liquid changes to a gas			

Answers

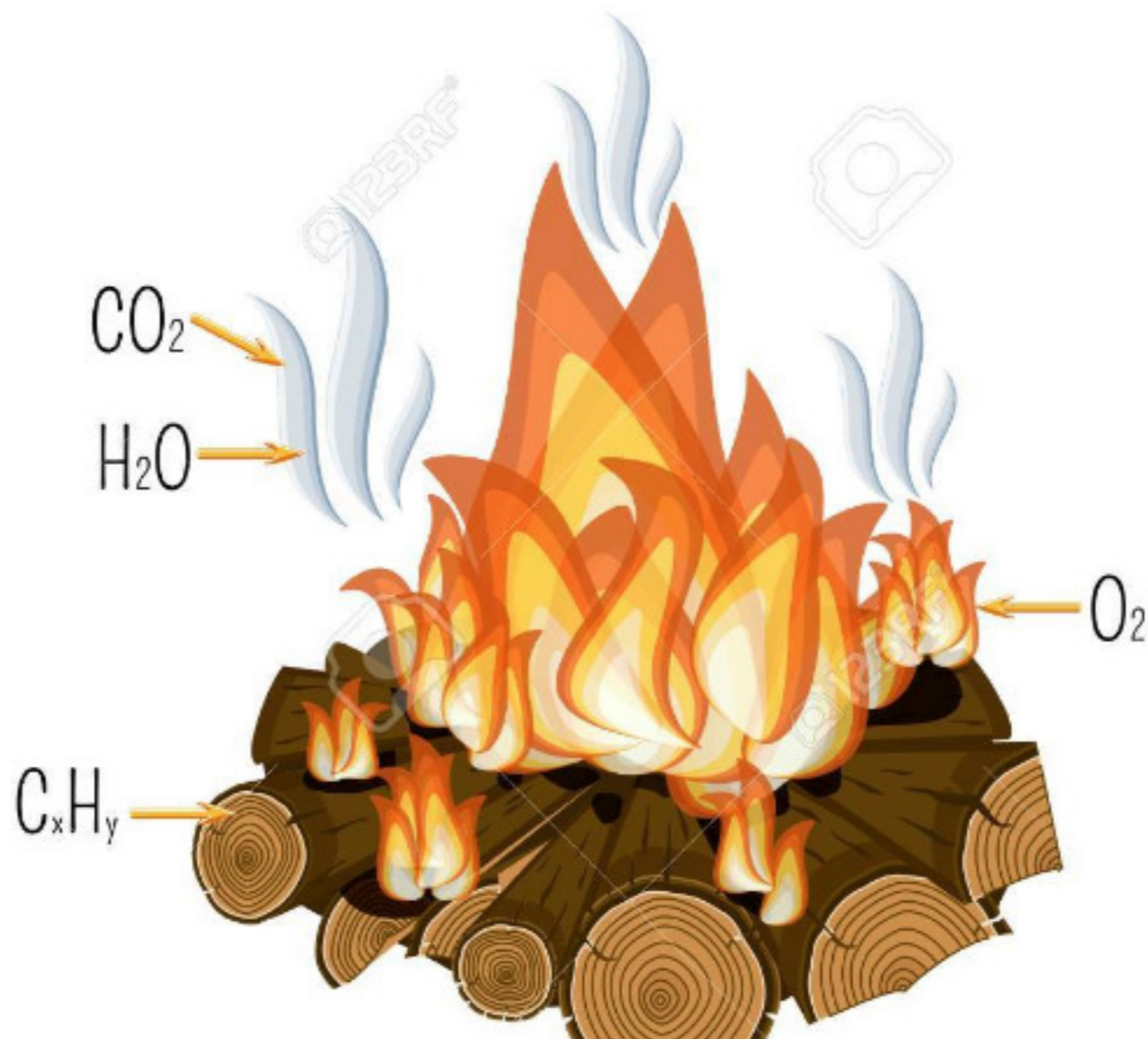
	A	D	Why is my choice correct/incorrect?
1. There are three states of matter: solid, liquid and gas	A		
2. Matter is made up of atoms and the way these atoms interact determines an objects state	A		
3. Solids have a definite volume, but not a definite shape		D	Definite volume and shape
4. The atoms in a solid vibrate in place	A		
5. Liquids have a definite shape, but not a definite volume		D	No fixed shape, Fixed volume, incompressible
6. The atoms of a liquid move completely free of each other		D	Particles slide
7. Gases do not have definite shapes or volumes	A		

Answers

8. The atoms of a gas are held close to each other, but can slide around each other		D	They are far apart
9. A change of state happens when a substance changes from one physical form to another	A		
10. Melting occurs when you change from a solid to a liquid	A		
11. The change of state from liquid to solid is called boiling		D	Liquid to a solid is freezing
12. Evaporation occurs when a liquid changes to a gas	A		

Energy part 1 & 2

Now we are moving to page 6.






What Is Energy?

Energy does things for us. It moves cars along the road and boats on the water. It bakes a cake in the oven and keeps ice frozen in the freezer. It plays our favorite songs and lights our homes at night. Energy helps our bodies grow and our minds think. Energy is a changing, doing, moving, working thing.

Energy is defined as the ability to produce change or do work, and that work can be divided into several main tasks we easily recognize:

- Energy produces light.
 - Energy produces heat.
 - Energy produces motion.
 - Energy produces sound.
 - Energy produces growth.
 - Energy powers technology.
- 

Breakout Rooms - complete page 6 together

BREAKOUT ROOMS ETIQUETTE

1. You will be divided into groups for the breakout rooms to collaborate & answer questions.
2. A **countdown** will appear to have you return to the main room.
3. All virtual **RULES** still apply.
4. Assign a **GROUP LEADER to stay on task**. While someone is talking in your group **"mute"** your mic.
5. Your teacher will be popping into the rooms.
6. This is **NOT** a time to fool around!
7. If you can't be **MATURE** then you will do a breakout room with just your teacher.
8. **Work together** to complete the questions.

Chemistry is

9 F Fluorine 18.998403	92 U Uranium 238.02891	7 N Nitrogen 14.00644
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SCIENCE IS LIKE MAGIC BUT IT'S REAL

Energy Part 1

Guiding Question: What mechanisms allow us to utilize the energy of our foods and fuels?



A. Person Running



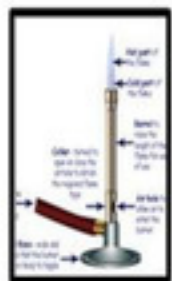
B. Person Eating



C. Oil Well Drilling



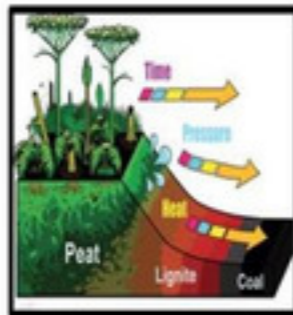
D. Plant Growing



E. Bunsen Burner
Using Methane



F. Cars Driving

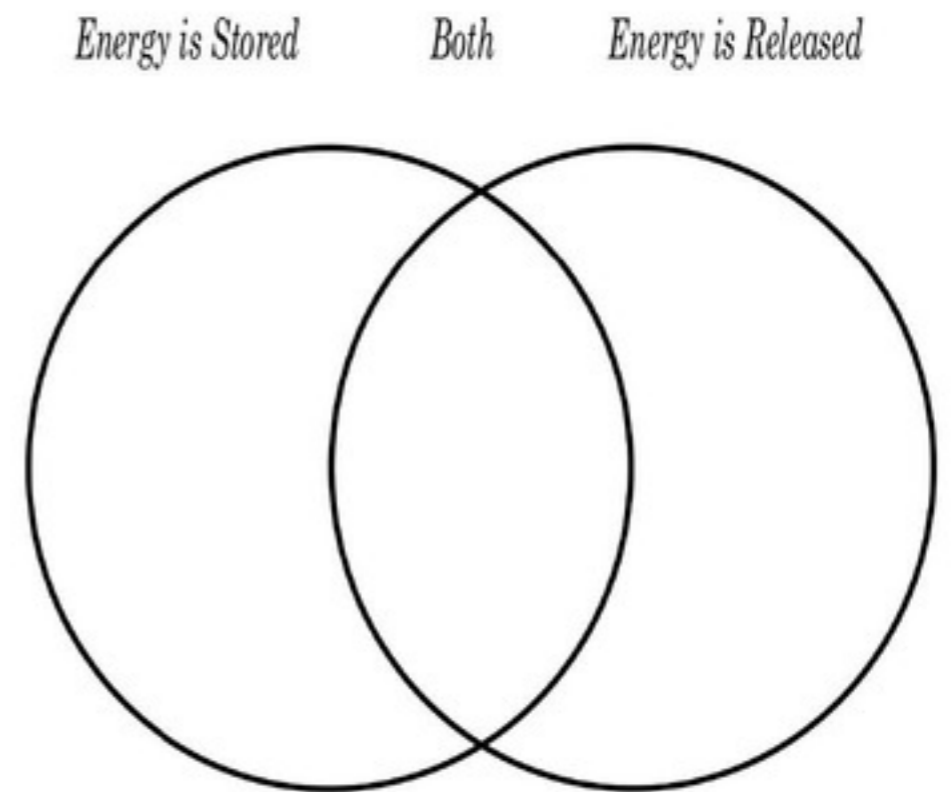


G. Formation of Coal



H. Plastics

Part 1. Look carefully at the pictures and discuss with your partner to complete the Venn Diagram.



Energy Part 1

Guiding Question: What mechanisms allow us to utilize the energy of our foods and fuels?



A. Person Running



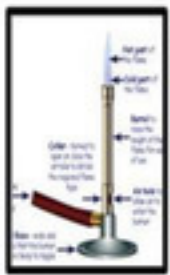
B. Person Eating



C. Oil Well Drilling



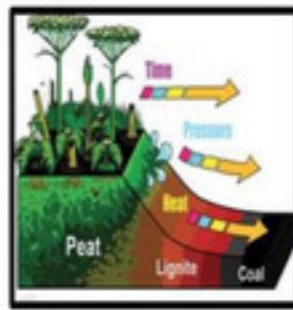
D. Plant Growing



E. Bunsen Burner Using Methane



F. Cars Driving

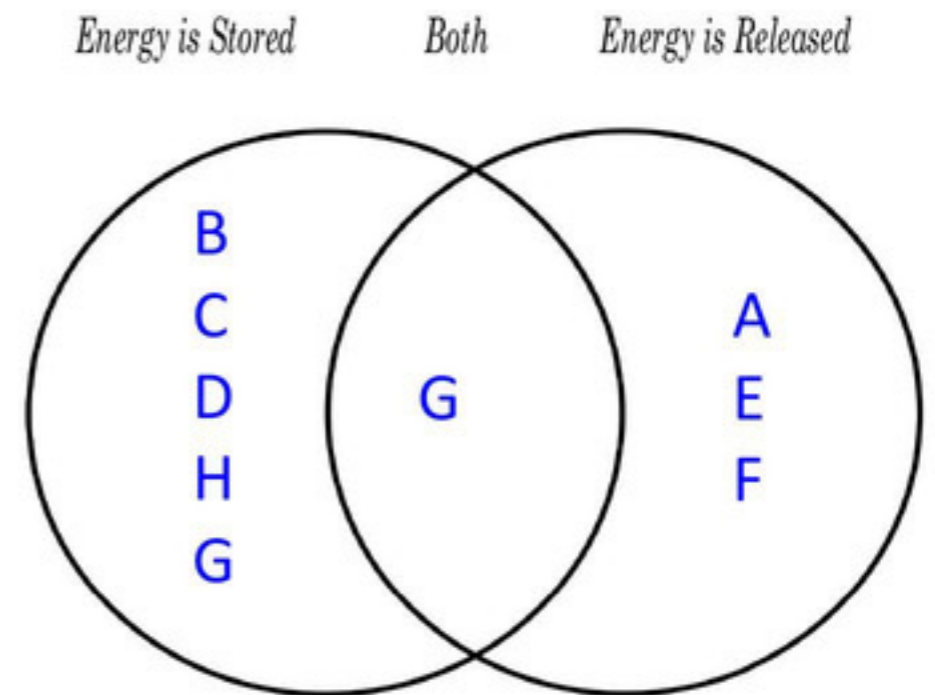


G. Formation of Coal



H. Plastics

Part 1. Look carefully at the pictures and discuss with your partner to complete the Venn Diagram.



Energy Part 2

Which activities require Oxygen?

Letter	Is oxygen required?	How do you know?
A		
B		
C		
D		
E		
F		
G		
H		

Guiding Question: What mechanisms allow us to utilize the energy of our foods and fuels?



A. Person Running



B. Person Eating



C. Oil Well Drilling



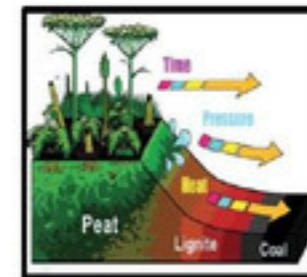
D. Plant Growing



E. Bunsen Burner Using Methane



F. Cars Driving



G. Formation of Coal



H. Plastics

Energy Part 2 -Answers

Letter	Is oxygen required?	How do you know?
A	Y	
B	Y	
C	N	
D	N	
E	Y	
F	Y	
G	N	
H	Y	

Guiding Question: What mechanisms allow us to utilize the energy of our foods and fuels?



A. Person Running



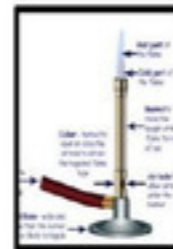
B. Person Eating



C. Oil Well Drilling



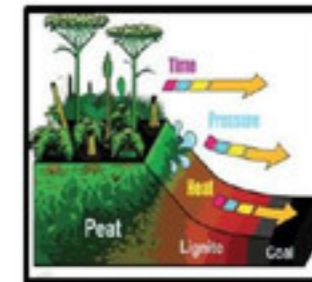
D. Plant Growing



E. Bunsen Burner
Using Methane



F. Cars Driving



G. Formation of Coal



H. Plastics



Nutrition Facts
Serving Size 1 oz (28g/About 21 pieces)

Amount Per Serving		% Daily Value*	
Calories	160	Calories from Fat	100
Total Fat	11g		17%
Saturated Fat	1.5g		8%
Trans Fat	0g		
Cholesterol	0mg		0%
Sodium	250mg		10%
Total Carbohydrate	13g		4%
Dietary Fiber	less than 1g		2%
Sugars	0g		
Protein	1g		
Vitamin A	0%	Vitamin C	0%
Calcium	0%	Iron	2%
Thiamin	6%	Riboflavin	2%
Niacin	4%	Vitamin B6	2%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg

Ingredients: Enriched Corn Meal (Corn Meal, Ferrous Sulfate, Niacin, Thiamin Mononitrate, Riboflavin, and Folic Acid), Vegetable Oil (Corn, Canola, and/or Sunflower Oil), Flamin' Hot Seasoning (Maltodextrin [Made From Corn], Salt, Sugar, Monosodium Glutamate, Yeast Extract, Citric Acid, Artificial Color [Red 40 Lake, Yellow 6 Lake, Yellow 5, Yellow 5], Sunflower Oil, Cheddar Cheese [Milk, Cheese Cultures, Salt, Enzymes], Onion Powder, Whey, Whey Protein Concentrate, Garlic Powder, Natural Flavor, Buttermilk, Sodium



Nutrition Facts
Serving Size 1 container

Amount Per Serving		% Daily Value*	
Calories	140	Calories from Fat	20
Total Fat	2.5g		4%
Saturated Fat	1.5g		7%
Trans Fat	0g		
Cholesterol	10mg		4%
Sodium	135mg		6%
Total Carbohydrate	23g		8%
Sugars	16g		
Protein	6g		12%
Vitamin A	15%	Calcium	20%
Vitamin D	20%	Phosphorus	15%

Not a significant source of dietary fiber, vitamin C and iron.
* Percent Daily Values are based on a 2,000 calorie diet.

Ingredients: Cultured Pasteurized Grade A Reduced Fat Milk, Sugar, Modified Corn Starch, Caramelized Cane Sugar, Kosher Gelatin, Butter, Natural Flavor, Salt, Vitamin A Acetate, Vitamin D₃.

K D GRADE A GLUTEN FREE
Yoplait is a registered trademark of YOPLAIT MARQUES (France) used under license.
KEEP REFRIGERATED
PROTECT WILDLIFE CRUISE CUP BEFORE DISPOSAL
*SUGAR CONTENT HAS BEEN LOWERED FROM 26 GRAMS TO 16 GRAM PER 6 OZ SERVING.

Live & Active Cultures
Meets National Yogurt Association Criteria for Live and Active Culture Yogurt

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© Yoplait USA, Inc. 3825241105

How can the amount of energy be measured?

- Energy is measured in calories or joules.
- **Circle the calories** for each food which is the energy in the food.



Energy Unit

What is the unit for energy found in food?

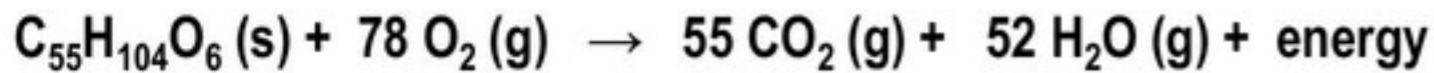
Collaborate!

Energy Unit

Questions:

Which food (Yogurt/Cheetos) do you think contains more energy per serving based from their Calorie information?

Label the reactant and product side on the lines provided for the equation written below.



Circle the energy in the equation above. Is energy released or absorbed? _____



Nutrition Facts	
Serving Size 1 container	
Amount Per Serving	
Calories 140	Calories from Fat 20
% Daily Value*	
Total Fat 2.5g	4%
Saturated Fat 1.5g	7%
Trans Fat 0g	
Cholesterol 10mg	4%
Sodium 135mg	6%
Total Carbohydrate 23g	8%
Sugars 16g	
Protein 6g	12%
Vitamin A 15% • Calcium 20%	
Vitamin D 20% • Phosphorus 15%	
*Percent Daily Values are based on a	

Ingredients: Cultured Pasteurized Grade A Reduced Fat Milk, Sugar, Modified Corn Starch, Caramelized Cane Sugar, Kosher Gelatin, Butter, Natural Flavor, Salt, Vitamin A Acetate, Vitamin D₂.

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Nutrition Facts	
Serving Size 1 oz (28g/About 21 pieces)	
Amount Per Serving	
Calories 160	Calories from Fat 100
% Daily Value*	
Total Fat 11g	17%
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Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 250mg	10%
Total Carbohydrate 13g	4%
Dietary Fiber less than 1g	2%
Sugars 0g	
Protein 1g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 2%
Thiamin 6%	Riboflavin 2%
Niacin 4%	Vitamin B ₆ 2%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg

Answers

- Which food (Yogurt/Cheetos) do you think contains more energy per serving based from their Calorie information? Cheetos

- Label the reactant and product side on the lines provided for the equation written below.
(Fat) $C_{55}H_{104}O_6 (s) + 78 O_2 (g) \rightarrow 55 CO_2 (g) + 52 H_2O (g) + \text{energy}$

reactants

products

- **Circle** the energy in the equation above. Is energy released or absorbed? released

Poll

If energy is released in a combustion reaction and heat is produced, is the energy found on the reactant or product side?

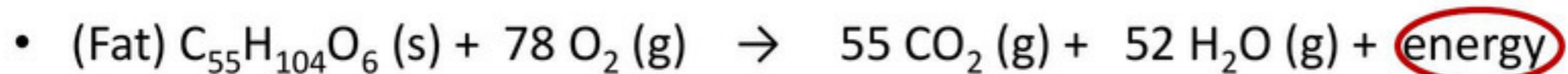
- reactant
- product

	What do you need for a combustion reaction?	What is produced by a combustion reaction?
Combustion Reaction	_____ and _____	_____, _____ and _____

	What do you need for a combustion reaction?	What is produced by a combustion reaction?
Combustion Reaction	<u>Fuel</u> and <u>O₂</u>	<u>CO₂</u> , <u>H₂O</u> and <u>energy</u>

All the answers:

- Label the reactant and product side on the lines provided for the equation written below.



Reactants

Products

- Circle the energy in the equation above. Is energy released or absorbed? Released – energy is on the product side

	What do you need for a combustion reaction?	What is produced by a combustion reaction?
Combustion Reaction	Fuel Oxygen	Carbon dioxide gas Water vapor

Quiz

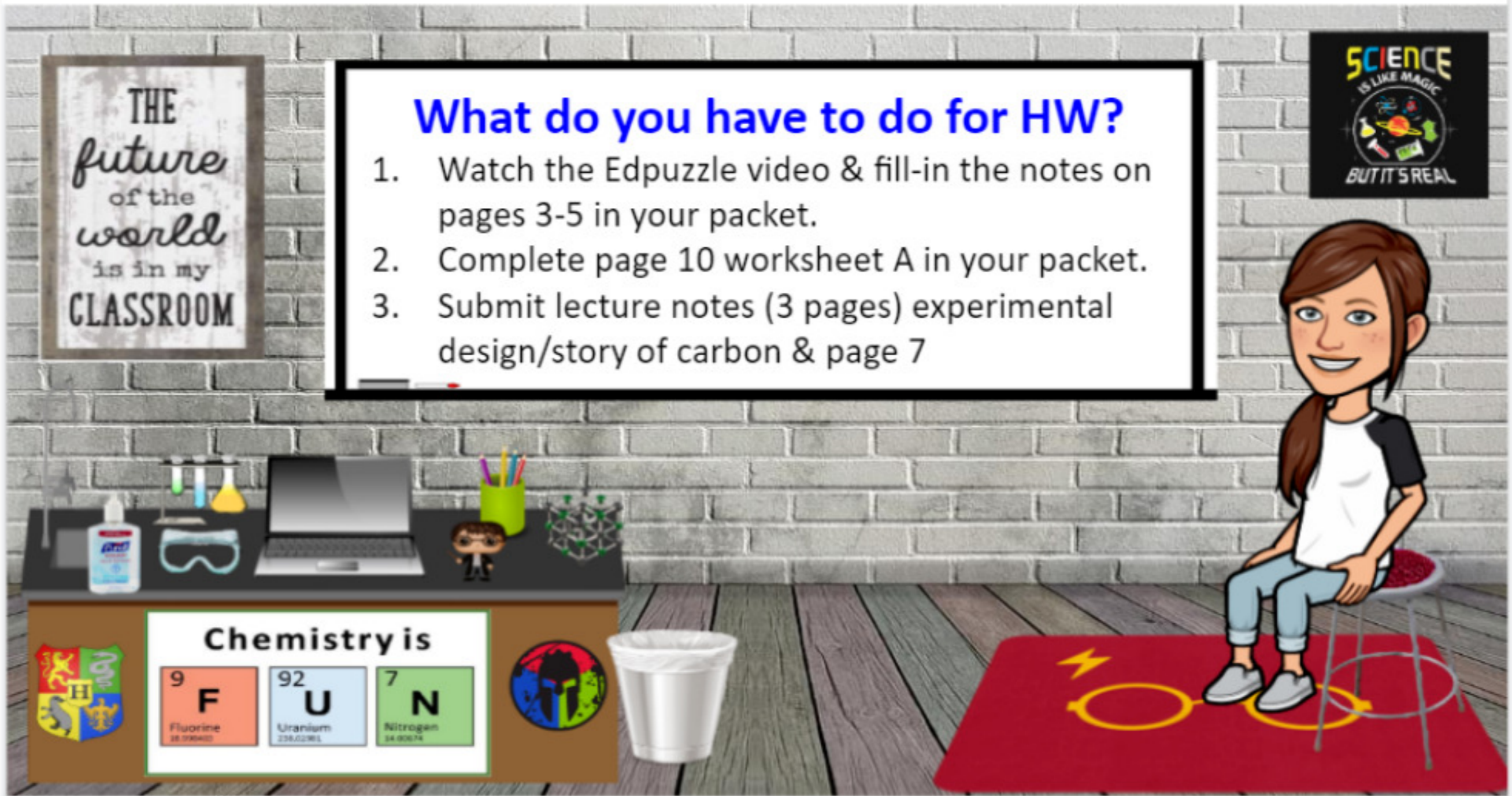
When energy is released, energy will be written on the...

- reactant side
- product side

HW assignments

What do you have to do for HW?

1. Watch the Edpuzzle video & fill-in the notes on pages 3-5 in your packet.
2. Complete page 10 worksheet A in your packet.
3. Submit lecture notes (3 pages) experimental design/story of carbon & page 7



Let's talk about

WEDNESDAY CLASS TIME

Your teacher(s) will not be here with you on Wednesday. You will **NOT** be logging into Zoom on Wednesday, **BUT** you will complete the following on GC Under the tab "**Week 2- Wednesday HW**".

"Week 2- Wednesday HW".

1. **Check** your answers to Worksheet A on GC.
2. **Complete** the Kahoot using your notes.
3. **Complete** the Energy Part 1 & 2 Google form using your notes.
4. **ALL** assignments need to be completed on Wednesday.

SCIENCE
IS LIKE MAGIC
BUT IT'S REAL



Chemistry is

9 F Fluorine 18.9984032	92 U Uranium 238.02891	7 N Nitrogen 14.00674
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HW Next Class

Go to [Google Classroom](#) and check what assignments you need to complete by next class.