## Jeopardy!

Bonding \& Nomenclature Test Review

## JEOPARDY!

You never know what you are going to get

## $\$ 100$

$\$ 100$
$\$ 200$
$\$ 300$
$\$ 400$
$\$ 500$
$\$ 500$
$\$ 500$
$\$ 500$

## Question:

# Monoatomic Ions for \$100 

## What is the charge of lodine?

# Answer: <br> Monoatomic Ions for \$100 

-1

## Question:

## Monoatomic Ions for \$200

What is the charge of Cesium?

# Answer: <br> Monoatomic Ions for \$200 

$$
+1
$$

## Question:

# Monoatomic Ions for \$300 

What is the charge of Aluminum?

# Answer: <br> Monoatomic Ions for \$300 

## Question:

# Monoatomic Ions for \$400 

What is the charge of Bismuth?

# Answer: <br> Monoatomic Ions for \$400 

## Question:

# Monoatomic Ions for \$500 

What is the charge of Manganese?

# Answer: <br> Monoatomic Ions for \$500 

## Question:

## Binary Compounds for \$100

What is the chemical formula of sodium chloride?

## Answer:

## Binary Compounds for \$100

NaCl

## Question:

## Binary Compounds for \$200

What is the chemical formula of silver sulfide?

## Answer:

## Binary Compounds for \$200

## $\mathrm{Ag}_{2} \mathrm{~S}$

## Question:

## Binary Compounds for \$300

What is the chemical formula of Copper (III) Telluride?

## Answer:

## Binary Compounds for $\$ 300$

$\mathrm{Cu}_{2} \mathrm{Te}_{3}$

## Question:

## Binary Compounds for \$400

What is the chemical formula of Thallium (I) carbide?

## Answer:

## Binary Compounds for \$400

## $\mathrm{Ti}_{4} \mathrm{C}$

## Question:

## Binary Compounds for \$500

What is the chemical formula of chromium (III) oxide?

## Answer:

## Binary Compounds for \$500

$\mathrm{Cr}_{2} \mathrm{O}_{3}$

## Question:

## Polyatomic Compounds for $\$ 100$

What is the chemical formula of barium sulfate?

## Answer: <br> Polyatomic Compounds for $\$ 100$

## $\mathrm{BaSO}_{4}$

## Question:

## Polyatomic Compounds for $\$ 200$

What is the chemical formula of Iron (III) phosphate?

## Answer: <br> Polyatomic Compounds for $\$ 200$

## $\mathrm{FePO}_{4}$

## Question:

## Polyatomic Compounds for $\$ 300$

What is the chemical formula of copper (II) carbonate?

## Answer: <br> Polyatomic Compounds for $\$ 300$

## $\mathrm{CuCO}_{3}$

## Question:

## Polyatomic Compounds for $\$ 400$

What is the chemical formula of Cobalt (II) hydroxide?

## Answer: <br> Polyatomic Compounds for $\$ 400$

## $\mathrm{Co}(\mathrm{OH})_{2}$

## Question:

## Polyatomic Compounds for $\$ 500$

What is the chemical formula of Chromium (III) oxalate?

## Answer: <br> Polyatomic Compounds for $\$ 500$

$\mathrm{Cr}_{2}\left(\mathrm{C}_{2} \mathrm{O}_{4}\right)_{3}$

## Question:

Naming Compounds for \$100

What is the name of the compound $\mathrm{C}_{2} \mathrm{H}_{4}$ ?

## Answer:

# Naming Compounds for \$100 

Dicarbon Tetrahydride

## Question:

## Naming Compounds for \$200

What is the name of the compound $\mathrm{Ag}_{2} \mathrm{~S}$ ?

## Answer:

# Naming Compounds for \$200 

Silver Sulfide

## Question:

# Naming Compounds for \$300 

What is the name of the compound $\mathrm{NiCl}_{2}$ ?

## Answer:

## Naming Compounds for \$300

Nickel chloride

## Question:

# Naming Compounds for \$400 

What is the name of $\mathrm{Fe}_{2}\left(\mathrm{SO}_{4}\right)_{3}$ ?

## Answer:

# Naming Compounds for \$400 

Iron (III) Sulfate

## Question:

## Naming Compounds for \$500

What is the name of $\mathrm{NH}_{4} \mathrm{ClO}_{3}$ ?

## Answer:

# Naming Compounds for \$500 

Ammonium Chlorate

## Question:

## You Never Know What You are Going to Get for \$100

When writing chemical formulas, the number is omitted because it is understood to be there.

## Answer:

## You Never Know What You are Going to Get for \$100

## Question:

## You Never Know What You are Going to Get for \$200

Binary Compounds contain $\qquad$ elements, while polyatomic compounds contain more than elements.

## Answer:

## You Never Know What You are Going to Get for $\$ 200$

2, 2

## Question:

## You Never Know What You are Going to Get for \$300

In binary compounds, the cation is written according to the name, while the anion must remove its ending and add $\qquad$ at the end.

## Answer:

## You Never Know What You are Going to Get for $\$ 300$

element, -ide

## Question:

## You Never Know What You are Going to Get for \$400

A chemical compound is represented by a

## Answer:

## You Never Know What You are Going to Get for $\$ 400$

Chemical Formula

## Question:

## You Never Know What You are Going to Get for \$500

What 3 sports did both Nuggie and Connor play last year?

## Answer:

## You Never Know What You are Going to Get for $\$ 500$



Baseball


BACK TO GAMEBOARD


## Question: IT'S THE MOMENTS IN LIFE for $\$ 200$

A dipole moment occurs between which type of bonds?

## Answer: IT'S THE MOMENTS IN LIFE for $\$ 200$

Covalent - specifically POLAR COVALENT

## Question: IT'S THE MOMENTS IN LIFE for $\$ 400$

Who has the stronger dipole moment F or P?

# Answer: IT'S THE MOMENTS IN LIFE for $\$ 400$ 

F - Fluorine

## Question: IT'S THE MOMENTS IN LIFE for $\$ 600$

Who has the stronger dipole moment Ge or As?

## Answer: IT'S THE MOMENTS IN LIFE for $\$ 600$

As - Arsenic

## Question: IT'S THE MOMENTS IN LIFE for $\$ 800$

Who has the stronger dipole moment Cl or N ?

## Answer: IT'S THE MOMENTS IN LIFE for $\$ 800$

CI - Chlorine

# Question: IT'S THE MOMENTS IN LIFE for \$1000 

Is this picture correct? Why or Why Not?


## Answer: IT'S THE MOMENTS IN LIFE for $\$ 1000$

Yes, it's correct. You could add partial positive's and negatives, but not necessary

# Question: WHO'S STRONGER? for \$200 

$\mathrm{NO}_{2}$ or LiF?
Why?

## Answer: WHO'S STRONGER? for $\$ 200$

LiF - Ionic

# Question: WHO'S STRONGER? for \$400 

RbF or KCl?
Why?

## Answer: <br> WHO'S STRONGER? for $\$ 400$

RbF - END of 3.2 versus 2.2

# Question: WHO'S STRONGER? for \$600 

## CaS or AIP?

Why?

## Answer: WHO'S STRONGER? for $\$ 600$

AIP - charges are +-3 versus +-2

# Question: WHO'S STRONGER? for \$800 

$\mathrm{S}_{2} \mathrm{Br}_{7}$ or $\mathrm{NO}_{2}$ ?
Why?

## Answer: <br> WHO'S STRONGER? for $\$ 800$

$\mathrm{NO}_{2}-$ END of 0.5 versus 0.3

## Question:

## WHO'S STRONGER? for \$1000

## $\mathrm{SO}_{2}$ or $\mathrm{CO}_{2}$ ?

Why?

## Answer: <br> WHO'S STRONGER? for \$1000

## They're EQUAL - same END

## Question: WHAT YOU LOOK LIKE? for $\$ 200$

What is the Lewis Structure of water?

## Answer: WHAT YOU LOOK LIKE? for $\$ 200$

## $\mathrm{H}-\mathrm{O}-\mathrm{H}$

## Question: WHAT YOU LOOK LIKE? for $\$ 400$

What is the Lewis Structure of $\mathrm{CO}_{2}$ ?

## Answer: WHAT YOU LOOK LIKE? for $\$ 400$



## Question: WHAT YOU LOOK LIKE? for $\$ 600$

What is the Lewis Structure for $\mathrm{PCl}_{5}$ ?

## Answer: WHAT YOU LOOK LIKE? for $\$ 600$



## Question: WHAT YOU LOOK LIKE? for $\$ 800$

What is the Lewis Structure of $\mathrm{CO}_{3}{ }^{2-}$ ?

## Answer: <br> WHAT YOU LOOK LIKE? for $\$ 800$



## Question: WHAT YOU LOOK LIKE? for $\$ 1000$

What is the Lewis Structure for $\mathrm{POCl}_{3}$ ?

## Answer: <br> WHAT YOU LOOK LIKE? for \$1000



## Question:

## SAY MY NAME, SAY MY NAME for \$200

## SAY MY NAME, SAY MY NAME for \$200

Uranium Fluoride

## Question: <br> SAY MY NAME, SAY MY NAME for \$400

HgS

## SAY MY NAME, SAY MY NAME for $\$ 400$

Mercury (II) Sulfide

## Question:

## SAY MY NAME, SAY MY NAME for \$600

$\mathrm{HNO}_{2}$

Answer:

## SAY MY NAME, SAY MY NAME for $\$ 600$

Nitrous Acid

## Question: <br> SAY MY NAME, SAY MY NAME for \$800

$\mathrm{N}_{2} \mathrm{H}_{4}$

## SAY MY NAME, SAY MY NAME for $\$ 800$

Dinitrogen Tetrahydride

## Question:

## SAY MY NAME, SAY MY NAME for \$1000

$\mathrm{H}_{3}\left(\mathrm{C}_{6} \mathrm{H}_{5} \mathrm{O}_{7}\right)$

## SAY MY NAME, SAY MY NAME for \$1000

Citric Acid

## Question: HE SAID, SHE SAID for \$200

My bonds are found in all states of matter

## Answer: HE SAID, SHE SAID for \$200

Covalent

## Question: HE SAID, SHE SAID for $\$ 400$

In water, my bonds dissociate and conduct electricity

## Answer: HE SAID, SHE SAID for $\$ 400$

Ionic

## Question: HE SAID, SHE SAID for $\$ 600$

In water, I dissolve, but can't conduct electricity

## Answer:

## HE SAID, SHE SAID for $\$ 600$

Polar Covalent

# Question: HE SAID, SHE SAID for $\$ 800$ 

Rank the strength of intramolecular \& intermolecular forces strongest to weakest

BONUS $\$ 200$ - What is the other name for intermolecular forces?

# Answer: HE SAID, SHE SAID for \$800 

Intra - Ionic, Polar Covalent, Nonpolar Covalent
Inter - Ionic, Hydrogen Bonds, Dipole-Dipole, London Forces

BONUS - Van Der Waals

# Question: HE SAID, SHE SAID for $\$ 1000$ 

Why does your body need electrolytes?

# Answer: HE SAID, SHE SAID for $\$ 1000$ 

Electrolytes are any substance that ionizes in water \& can conduct electricity. Your nervous systems runs on electric impulses, if your body fluid is not ionized, your brain can't send messages back and forth to other parts of your body.

# Final Jeopardy! 

Yeah, we're not there yet, but ....

## QUESTION: FINAL JEOPARDY!

How many atoms are in the formula $\mathrm{Sn}_{3}\left(\mathrm{PO}_{4}\right)_{4}$ ?

# ANSWER: FINAL JEOPARDY! 

23 totals atoms

$$
\begin{aligned}
S n & =3 \\
P & =4 \\
O & =16
\end{aligned}
$$

