Inspiring Greatness
ISD
INDEPENDENCE SCHOOL DISTRICT

High School Science Virtual Learning

Chemistry
Mole Conversions

April 8, 2020

High School Chemistry
Lesson: April 8, 2020

Objective/Learning Target:
Students will be able to convert between grams, moles, and particles.

Let's Get Started:

Classify each of the following reactions:

1. $CuBr_2 + Ca \rightarrow CaBr_2 + Cu$
2. $Na + Cl_2 \rightarrow NaCl$
3. $CuF + KOH \rightarrow CuOH + KF$

Let's Get Started: Answer Key

Classify each of the following reactions:

1. $CuBr_2 + Ca \rightarrow CaBr_2 + Cu$ Answer: Single Displacement
2. $Na + Cl_2 \rightarrow NaCl$ Answer: Combination
3. $CuF + KOH \rightarrow CuOH + KF$ Answer: Double Displacement

Lesson Activity:

Directions:

1. Watch this video and answer the following questions.
    a. Where can you find the molar mass?
    b. Molar mass is used to convert between what units?
2. Watch this video and answer the following questions.
    a. What is Avogadro's number?
    b. Between what units is it able to convert?

Practice

Complete the following questions using the information you learned during the lesson activity.

Remember: In conversions, 6.022×10^{23} goes with particles, molar mass goes with grams, and 1 USUALLY goes with moles

Questions:

1. 3.5×10^{24} atoms of iron is equivalent to how many moles of iron?
2. What is the mass in grams of 0.327 moles of neon?
3. How many moles are in a 85.6-g sample of carbon monoxide?
4. How many formula units are in 2.357 moles of $FeCl_3$?

Once you have completed the practice questions check with the answer key.

1. 5.8 mol Fe
2. 6.60 g Ne
3. 3.06 mol CO
4. 1.419×10^{24} formula units $FeCl_3$

More Practice:

Follow the links below to do more practice.

1. Mole to Mass Conversions
2. Mole to Gram Conversions

Additional Practice:
Click on this link for additional practice.
This link has the answer key.