

Guided Lesson Notes

Name: _____ Date: _____

Chemical Quantities and the Mole

Directions: Complete this study guide as you move through the lesson. By taking notes, you are more likely to remember what you are learning. The completed study guide can be used for practice activities and to prepare for quizzes and exams. Be sure to save each study guide so you can access it when you need it.

Essential Vocabulary

As you encounter these scientific terms in the lesson, enter the meaning and an example (or two) for each. You can even draw a picture. If there are other unfamiliar words you find, enter them in the blank spaces provided.

<i>mole</i>	<i>Avogadro's number</i>
<i>molar mass</i>	<i>representative particles</i>

The Mole

How is the quantity of one mole defined?

What is a representative particle?

How many representative particles does one mole of anything contain?

The number of particles in one mole of a substance is called _____.

Using Avogadro's Number

What is the conversion factor used to convert from moles of a substance to the number of representative particles of that substance?

Describe how to convert from the number of representative particles of a substance to moles.

Tutorial: Molar Mass

The mass of an element measured in u is numerically equal to the mass of one mole of atoms of that element measured in _____.

What is the molar mass of a substance?

How is the atomic mass of an element related to its molar mass?

What are the units of molar mass?

What is the molar mass of a compound?

What information do you get from the chemical formula for a compound?

How do you determine the number of moles of a specific element in a compound?

Using Molar Mass

How do you convert the number of moles of a substance to the substance's mass?

How do you convert from a substance's mass to the number of moles of a substance?