

Gizmo - Student Exploration Balancing Chemical Equations-with 100% verified solutions-2023

Student Exploration: Chemical Equations

Vocabulary: Avogadro's number, chemical equation, chemical formula, chemical reaction, coefficient, combination, combustion, conservation of matter, decomposition, double replacement, molar mass, mole, molecular mass, molecule, product, reactant, single replacement, subscript

Prior Knowledge Questions (Do these BEFORE using the Gizmo.)

1. A candle is placed on one pan of a balance, and an equal weight is placed on the other pan.

What would happen if you lit up the candle and waited for a while? _____
The weight would go down.

2. Suppose the candle was placed in a large, sealed jar that allowed it to burn for several minutes before running out of oxygen. The candle and jar are balanced by an equal weight.

In this situation, what would happen if you lit up the candle and waited? _____
It would stay equal.

Gizmo Warm-up

Burning is an example of a **chemical reaction**. The law of **conservation of matter** states that no atoms are created or destroyed in a chemical reaction. Therefore, a balanced **chemical equation** will show the same number of each type of atom on each side of the equation.

To set up an equation in the *Chemical Equations* Gizmo, type the **chemical formulas** into the text boxes of the Gizmo. First, type in "H₂+O₂" in the **Reactants** box and "H₂O" in the **Products** box. This represents the reaction of hydrogen and oxygen gas to form water.



1. Check that the **Visual** display is chosen on each side of the Gizmo, and count the atoms.

A. How many hydrogen atoms are on the **Reactants** side? 2 **Products** side? 2

B. How many oxygen atoms are on the **Reactants** side? 2

2. Based on what you see, is this equation

SOLE

Explore Learning Balancing Chemical Equations Gizmo

Chris McMullen



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(Richmond, B.C.),1986

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In a fast-paced world fueled by information and interconnectivity, the spellbinding force of linguistics has acquired newfound prominence. Its capacity to evoke emotions, stimulate contemplation, and stimulate metamorphosis is actually astonishing. Within the pages of "**Explore Learning Balancing Chemical Equations Gizmo**," an enthralling opus penned by a very acclaimed wordsmith, readers attempt an immersive expedition to unravel the intricate significance of language and its indelible imprint on our lives. Throughout this assessment, we shall delve in to the book is central motifs, appraise its distinctive narrative style, and gauge its overarching influence on the minds of its readers.

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