Balancing Chemical Equation – PhET Activity

**Purpose:** To see the Law of Conservation of Mass mathematically in chemical formulas

**Background:** The Law of Conservation of Mass states matter cannot be created or destroyed.

Go to https://phet.colorado.edu/en/simulation/balancing-chemical-equations

**Part 1– Introduction**

Instructions: Under tools click on the balance. Use this tool to help you balance the amount of each element on each side by changing the coefficients of the molecules.

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| --- | --- | --- | --- |
| Action | Balanced Equation | Particle View (draw what you see in the white boxes) | Balance View (draw what you see in the balances) |
| Make Ammonia | \_\_\_\_ N2 + \_\_\_\_ H2 🡪 \_\_\_\_ NH3 |  |  |
| Separate Water | \_\_\_ H2O 🡪 \_\_\_ H2 + \_\_\_ O2 |  |  |
| Combust Methane | \_\_\_ CH4 + \_\_\_ O2  🡪 \_\_\_ CO2 + \_\_\_ H2O |  |  |

Now go to the game section and try the game, when you are done have the teacher verify the score on your screen matches the score you write below**. If you do not get the teachers signature you lose your points!**

**Part 2 – Game**

Score Teacher Signature Needed Below

Level 1 / 10

Level 2 /10

Level 3 / 10