Name/Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

“Using Skittles to Balance Chemical Equations”

Listed below are a series of unbalanced chemical equations. Work in pairs to balance the following chemical equations.

Use different colored skittles to represent the different kinds of atoms.

|  |  |  |
| --- | --- | --- |
| **Color** | **Element** | **Atomic Mass** |
| **Red** | **Hydrogen** | **1** |
| **Orange** | **Carbon** | **12** |
| **Green** | **Nitrogen** | **16** |
| **Yellow** | **Oxygen** | **20** |
| **Purple** | **Chlorine** | **35** |

Make a model of skittles to represent atoms of the reactants and products. Draw and label the elements as molecules, coloring not required. Use the atomic mass to calculate the number of each molecule, please show your work.

1. \_\_\_\_H2 + \_\_\_\_O2 🡪\_\_\_\_ H20

|  |  |
| --- | --- |
| Number of Reactants | Number of Products |
|  |  |
| Model Reactants | Model Products |
|  |  |
| Atomic Mass Before | Atomic Mass After |
|  |  |

2. \_\_\_\_H2 + \_\_\_\_ C 🡪 \_\_\_\_CH4

|  |  |
| --- | --- |
| Number of Reactants | Number of Products |
|  |  |
| Model Reactants | Model Products |
|  |  |
| Atomic Mass Before | Atomic Mass After |
|  |  |

 3. \_\_\_\_CH4 + \_\_\_\_ O2 🡪 \_\_\_\_CO2 + \_\_\_\_H2O

|  |  |
| --- | --- |
| Number of Reactants | Number of Products |
|  |  |
| Model Reactants | Model Products |
|  |  |
| Atomic Mass Before | Atomic Mass After |
|  |  |

4. \_\_\_\_ CH4 + \_\_\_\_ Cl2 🡪 \_\_\_\_ CCl4 + \_\_\_\_ H2

|  |  |
| --- | --- |
| Number of Reactants | Number of Products |
|  |  |
| Model Reactants | Model Products |
|  |  |
| Atomic Mass Before | Atomic Mass After |
|  |  |

5. \_\_\_\_N2 + \_\_\_\_ H2 🡪 \_\_\_\_NH3

|  |  |
| --- | --- |
| Number of Reactants | Number of Products |
|  |  |
| Model Reactants | Model Products |
|  |  |
| Atomic Mass Before | Atomic Mass After |
|  |  |