

MicroChem 5 Balanced Equations

These are double replacement reactions. The compounds are all ionic, so when you are figuring out how to write the reaction, first write out the reactants (AKA reagents), then the arrow to show a reaction. Next write the first element of the first compound, followed by the second element of the second compound. You have to know the charges of each element, in order to know what ratio they will combine in as a product. This is determined by the formula of the reactants and using your periodic table. You also have to recognize polyatomic ions and look up their charges. I have written the charges of each element in the reactants and products side, so you can understand how they broke their ionic bonds when they were put together, then how they recombined to form new compounds. A compound has no charge, so the ions must be combined to where their charges neutralize each other.

For example, if the first element has a +2 charge and the second one has a -1 charge, then it will take two of the second element to neutralize the +2 charge of the first element. This is the case in our first reaction and the first product. The charges of the ions that are being combined are Ca +2 and OH -, so it will take two OH- to neutralize the Ca +2 ion; thus the formula is Ca(OH)2.

