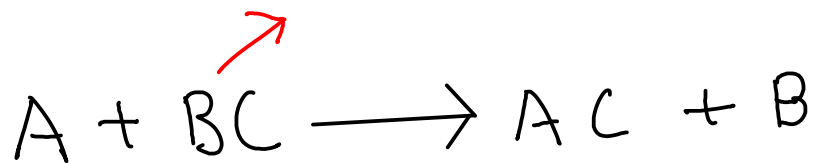
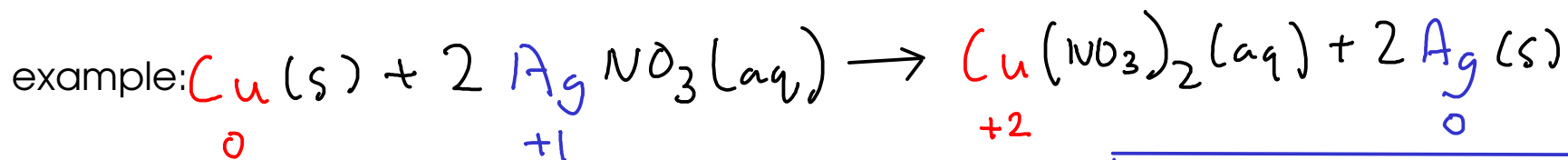


SINGLE REPLACEMENT REACTIONS

One element, usually a metal, replaces another element in a compound. This forms a new compound and leaves behind a new free element!



Copper loses electrons, goes from 0 charge to +2 charge!

Silver gains electrons, goes from +1 charge to 0 charge!

... but just because you combine an element and a compound doesn't mean that a reaction will occur. Some combinations react, some don't!

- Whether a reaction occurs depends on how easily the replacing and replaced elements lose electrons. An atom that loses electrons more easily will end up in IONIC form (in other words, in the compound). An atom that loses electrons less easily will end up as a free element.

- We say that an atom that loses electrons more easily than another is MORE ACTIVE than the other element. But how would you get information about ACTIVITY?

A single replacement reaction is an example of a reaction where ELECTRON TRANSFER is a driving force. Electron transfer reactions are generally called OXIDATION-REDUCTION reactions.